M. Arch. Candidate

# Crossings:
## Journey Through Le Corbusier's Villa La Roche

by

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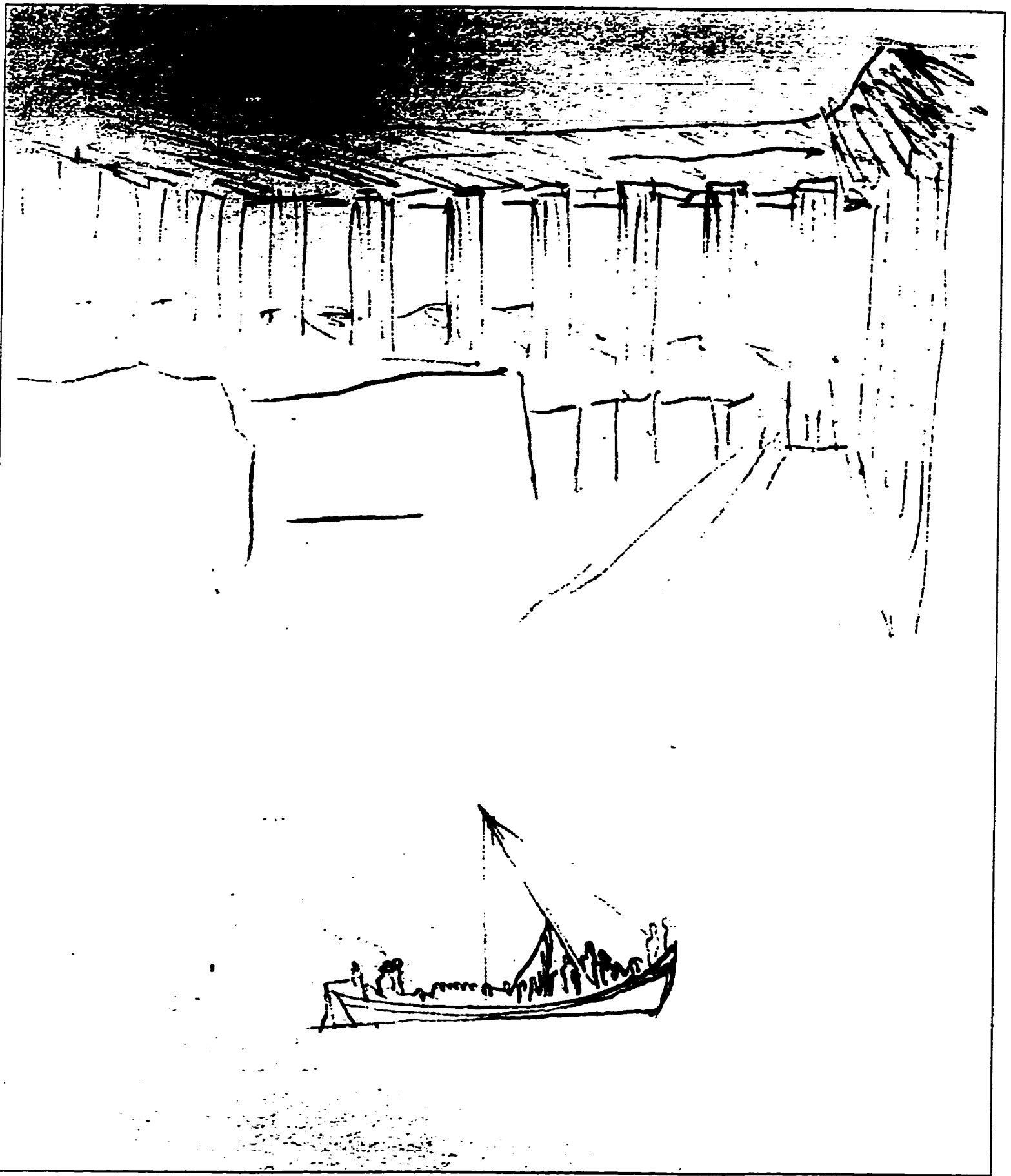

Le Corbusier in Journey in his journey to the East (between Tutkey and Greece. FLC 1783.

# Abstract

In a rapidly changing world, this study analyzes the dynamic of change in architecture. It looks at Le Corbusier's Villa la Roche, a building whose very theme is that of a journey across space and time. Immersing himself in various cultures and history through his travels, Le Corbusier defined a new dynamic synthesis between history and future.

Architecture has always been opened to influences from all directions, but the idea provided a crisp inspiration for Le Corbusier. The theme of journeying structured his new architecture and added to it depth of experiences, dynamism, and more importantly, unity within diversity. The variety of visions gathered from his journeys were linked in a rational continuity inside his new architectural type of space.

The key moment for the construction of the *promenade architecturale* is Villa La Roche. In spite of its relatively small size, this townhouse witnessed the crystallization of all elements responsible for making up the experience of a journey. The physical and intellectual journey acquired from different places becomes a tangible, shared experience in Villa La Roche.

# Acknowledgement

Finding suitable words to acknowledge everyone who helped in enriching my thoughts and guiding my ideas is not less difficult than the research process itself. The following few words are symbolic of my indebtedness to a few of the many who have refined my path.

The most important landmark on my journey is my intellectual advisor, Dr. Martin Bressani. The various classes, seminars, and sessions with him opened new doors for my mind besides enriching many of my perceptions. His consistent support, both moral and substantial, enabled me to transcend many of the obstacles faced in my journey.

Going back to the origins, I should express my boundless gratitude and special thanks to my family: to my mother, whose encouragement and support enabled me to be here; my caring father, whose support never reached a limit; and my younger brother who tried to help me by all means possible.

Also, I am indebted to the professors of the School of Architecture who provided me with all the knowledge and advice I required through all the different stages of development; and I would like to thank my editor, Elizabeth Dwivedi, whose great effort helped me to present my ideas in an acceptable academic form.

Thanks to all my friends, my university, my homeland, and this great hosting country.

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## Journey, Promenade, and Initiation in The Villa La Roche

*I am drawing the outline of a beautiful city remembered from my student travel . . .*

Le Corbusier, Précision sur un état présent

*I built my first house when I was seventeen; it was covered with decorations. I was twenty-four when I built my second house* [second type]*; it was white and bare: I have traveled in the meantime. The plans of this second house were lying in my drafting board. The year was 1911. . .*

*Architecture can be seen only by a walking man . . . so much so that when it comes to the test, buildings can be classified as alive or not according to whether the rule of movement has been applied or not.*

Le Corbusier, Etretien avec les étudiants des écoles d' archiecture

# Introduction

> *This long voyage lasted nearly a year. As a free pilgrim, with my bag on my back, guided by spur-of-the-moment impulses, I crossed countries on foot, on horseback, by boat or motorcar, coming up against the basic unity of the fundamental human elements amid the diversity of races. At its end, I had become convinced that a new century had arrived--the twentieth, that the achievements of the past were complete, and that a continuous and irreversible forward movement grips one epoch after another . . . .*
>
> Le Corbusier, The Decorative Art of Today

A journey is generally defined as a crossing, a traveling through time and space dimensions, but not all forms of travel yield a true crossing of boundaries. Three main elements are central to the idea of journey: a human body, a mental identity, and a territory. Many creatures, such as migrating birds, move through vast areas of space, but only humans can experience a journey. Only the human subject can confront the external world with the mental intention that defines a goal. The mind draws an axis that extends the inner intention to external space. Often, because of the unexpected character of a journey, turning points occur that divert the original intention. The dynamic quality of the true journey generates a series of varying perspectives that affect the internal perception of reality.

One of the most famous architectural journeys ever recorded is Le Corbusier's travel to the East. Not only did it catalyze his vision of a new architecture, but it also marked decisively the definition of twentieth-century architecture. The trip, from the start, was understood by Le Corbusier as a kind of initiatory journey, a voyage to discover the "spirit of architecture" which "can only result from a particular condition of material things and a particular condition of mind"[1]. The arduous journey unlocked the mind's ability to see similarities through differences. The path, the intention, became a line of axis that integrated different perspectives without losing its identity.

The young Charles Edouard Jeanneret-Gris[2] toured several countries, each with its distinct cultural identity developed over a relatively long period of time. His aim was to explore, to dwell or "see" inside each culture to retrieve a meaningful essence from the depths of the Mediterranean world. His travel diaries as well as his sketches showed an extremely wide range of interests in architecture and in life in general, an attitude that enabled him to understand the architecture not merely as constructions, but as an essential expression of direct human needs. As he crossed from one region to another, he gradually gained a unique perspective that empowered him to create a new architectural vision for an emerging modern world.

Jeanneret described himself as "a pilgrim"; his journey had a sacred intention–to extend earlier visions influenced by a succession of mentors from La chaux-de-Fonds,

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[1] Le Corbusier, Towards A New Architecture, trans. Fredrick Etchells (London: John Rodker, 1927; repr., London: Butterworth Architecture, 1989), 90.

[2] Le Corbusier original name is Charles Edouard Jeanneret-Gris.

Italy, Vienna, Paris, and Germany. As the final stage in a series of journeys, the journey to the East would finally synthesize his new vision. He had searched for common points of origin around which, like the radii of a circle, all traditions center. By following the path of tradition from west to east and back, he had found those points.

On the long journey, prophetic books were Jeanneret's regular companions: Auguste Renan's *Life of Jesus,* Nietzsche's *Zarathustra,* Schure's *Great Initiates,* and Cingria-Vaneyre's *Les Entretiens de la villa du Rovet* all embodied the idea of originality, and described the initiation of the founders and prophets " who gave . . . initial impetus . . . [and] received keen intuition and inspiration . . . which leads to fruitful action. Indeed, synthesis pre-existed in them."[3] The few books that defined his path and echoed his inner calling converged at various points. Vaneyre, for instance, stresses the impact of the initiator as the "individual's influence on the artistic destiny of a people. . . . Man more often transforms the country where he lives than the earth influences the people who inhabit it."[4] Schure describes how

> "The divine ray [is] dimmed and darkened by their [the initiators'] successors, but it reappears, it shines whenever a prophet, hero, or seer returns to his life origin . . . .Revelation in history is continuous, graduated, multiform, like nature, but identical in its sources, (one) like Truth, unchangeable as God."[5]

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[3] Edouard Schure, The Great Initiates: A Study of the Secret History of Religions, trans. Gloria Rasberry (New York: Rudolf Steiner Publications, 1961), 46.

[4] Alexandre Cingria-Veneyre, Les Etretiens de la villa du Rovet; essais dialogues sur les arts plastiques en suisse romande (n.d.) ; quoted in H. Allen Brooks, The Formative Years Of Le Corbusier, (Chicago: The University of Chicago Press, 1997) , 238.

[5] Edouard Schure, Great Initiates , 46.

To be an initiator was the intention of the ambitious Jeanneret. He sought arduously to establish himself as a mediator of the future of architecture. He would be a pathmaker for others to follow instead of being himself a follower.

Jeanneret's journey to the East was a 'grand tour' through distinct civilizations with different origins, mainly the Ottoman, the Greek, the Roman, and the vernacular Mediterranean; in addition he made short forays into the Gothic and the Renaissance. Although Jeanneret sought a goal at the end of the journey, the path was in fact circular. The apparent contradiction between the linear intention and the circular path revealed an understanding that originality arises not only in one place but wherever the conditions are right. He was looking for unity amid diversity; that is, looking for the similarities of the human intellect and feelings and the "fundamental human elements". This understanding of unity, which evolved through a "patient search" and led to "creation" (as he described it), is an interesting meditation as we confront the modern phenomenon of "Globalization". Le Corbusier's example is one of the clearest cases for a universality that still can negotiate difference, crossing boundaries without abolishing them in the process. Starting out from his small isolated city in the Jura, Le Corbusier transcended his own limitations in order to conceive one of the most revolutionary architectural visions of the century. His architectural ideas were a rational summation of the endeavours of many others, metaphorically linked to a common base–the fundamental elements of our humanity.

This thesis investigates the villa la Roche, Le Corbusier's first major villa of the 1920s, as an architectural metaphor for the journey to the East. One note of warning from the start: the thesis is not intended so much as a "critical" analysis of Le Corbusier's ideology as the telling of a story about Villa La Roche and Le Corbusier's early years. Instead of tearing apart the "dominant" gaze of modernism, I wish rather to point to the metaphorical vision founded on multivalent origin, happy to loose myself in the rich complexities of Le Corbusier's world. I will be more concerned with the possibilities of invention resulting from the confrontation with other cultures.

Many aspects pointed towards Villa La Roche as an ideal case study for the idea of journeying: first of all, it is a house, a human shelter for the physical and psychological journey through life. The house embodies all the possibilities and the contradictions of human nature. Secondly, the villa La Roche defined, for the first time, architecture for our modern world. Villa La Roche is the first synthesized work following Le Corbusier's extended exposure to various cultural forces, especially during the final journey to the East. Thirdly, the villa is the first mature disclosure of the idea of *promenade architecturale* as Le Corbusier would later call it. Although the villa is not the ultimate example of Le Corbusier's architectural type, it marked the most significant turning point in his experiments with kinetic spaces.

My assumption is that the lively and dynamic architecture of Villa la Roche embodies the concept of journey. If architecture is and has always been open to influences from all directions, then architecture depends mainly on ideas of journey and

on presenting them through metaphors. My investigation concerns the link between the architectural promenade and the notion of journey. In particular I am exploring the role of Le Corbusier's journeys in defining the new architectural type embodied in villa La Roche.

My argument will follow three main stages: first, a biographical tracking of Le Corbusier's journeys; then a discussion of Villa La Roche and the ideas behind its evolution. I will describe the way it structures a journey through space and time, manifested symbolically and architecturally. After the two poles of the thesis (the actual journey and the architectural journey) are presented in Chapters One and Two respectively, Chapter Three will establish the link between the two notions. Suggesting four main elements that played a major role in structuring the journey spatially, I will show how the two kinds of journey may be related. Rather than just searching for all the diverse influences that contributed to the villa as an actuality, my discussion will be limited to the origination of the conceptions that helped to establish the villa as an architectural promenade.

# Chapter One: Crossing the Space/Time Dimensions

## 1.1 Roots and fruits of crossing

> *I do not feel I am breaking with tradition: I believe myself to be absolutely traditional in my theories. All the great works of the past, one after another, confirm my statement that the essential spirit of any period is bound to have an equivalent in material things*
>
> Le Corbusier, The City of Tommorow

Jeanneret spent his early years in the city of La Chaux-de-Fonds in the Jura region of Switzerland. The isolated community, famous for watchmaking, was conscious of its history and committed to preserving its distinct identity. At the age of fourteen, Jeanneret was sent to L'Ecole d'Art to receive the artistic training necessary to carry on the family tradition of decorating watch faces. The school's curriculum revolved around the idea of regionalism, and Jeanneret's first mentor, Charles L'Eplattenier, taught his students that the identity of a place emerges from the surrounding natural environment. He urged his students, the young Jeanneret among them, to look into nature to inspire their art. The young student absorbed the message very well: he began exploring the Jura motifs, plants, rocks, and soil configurations being among those that caught his attention. His artistic endeavors all spoke the language of the natural surroundings of Jura. In many of his sketches he portrayed plants strongly rooted through layers of soil, rendering the intricate details of soil structure and root systems in a complex coherence. He also tried to

discover the rhythms that govern the order of the landscape, from which he could derive an artistic expression.

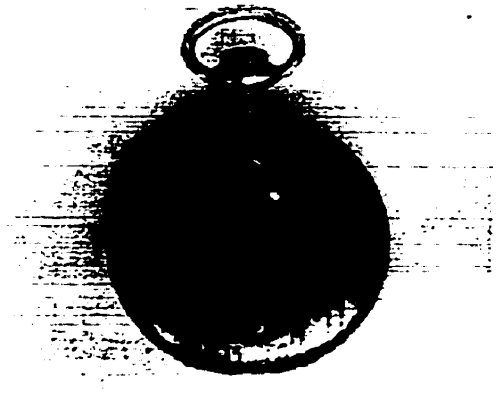

**Figure 2**

An early regional design by Edouard Jeanneret (1906) engraved on a watch case: "rocks and moss with a fly and drops of dew" (FLC).

**Figure 1**

An analysis by Jeanneret of the earth crust in his region .Notice the resemblance between the structure of the soil and the engraving on the watch-case (FLC 5811).

After three years of study in the engraving class, where Owen's The Grammar of the Ornament was their bible and Ruskin the hero figure, Jeanneret designed his first architectural project. Architecture had been proposed by L'Eplattenier as a supplementary two-year program at L'Ecole d'Art, and he invited Jeanneret, a most promising student, to join. Through L'Eplattenier, Jeanneret received his first commission, the Villa Fallet. The 1905 project was, according to expectation and direction, a typical Jura-region-type villa. Between this Ruskinian-type dwelling, where regional motifs and natural decorations covered every inch of its surface, and the early 1920s white-washed, modern-type villas, which were devoid of any motifs or decorations, a wide gap exists. This gap represents, for Le Corbusier a complete journey, a crossing. La Chaux-de-Fonds and

Paris marked, respectively, the boarding point and the destination on a long journey from regionalism to world-wide synthesis. The regionalist student set out from his original location for Italy; after that he continued in an unexpected cycle of travels that lasted for four years. This long journey was a decisive turning point in Le Corbusier's life and had a profound and lasting effect on his work.

**Figure 3**

Different structures of the Jura soil as sketched by Jeanneret (FLC 2518).

## 1.2 Turning points of the journey

Le Corbusier's journey, like his architectural promenades, was filled with new paths and turning points which took the traveler through many sudden changes and into unforeseen territories. What he gained from the journey was not merely what he found at the end of the road: dynamic encounters and changing visions accompanied each step. The act of strolling multiplies the probability of discovering new relationships that are reflected in the final mental vision. When individuals are invited to look into things to discover anew, if the result is "as expected" then they have not discovered anything new. This was clearly not the case with Jeanneret: he set

**Figure 4**

Study by Jeanneret (at L'Ecole d'Art) analyzing a plant of the region and its relation to the soil based on rectilinear geometry, 1903?. (FLC 1745)

out on his journey to strengthen his local identity, but at the end he found himself in an unexpected condition. He passed through Italy twice, each time with a different vision. And also in two visits to Paris, he experienced different mental conditions. Before considering the Villa La Roche, a key synthesizing phase of his development, and discussing the final phase of development of the idea, I will give a short account of the turning points in Le Corbusier's vision and their relation to his different journeys. The details of the journeys will be implemented as reference points for analyzing the symbols, what Kurt Forster called "signs and gestures", incorporated in Villa La Roche.[1]

**Figure 5**

Jeanneret and his colleagues, dressed like Ruskinian workers, executing Jura-motif decorations on the surface of his commission, Villa Fallet. (The Creative Search, 98)

My assumption is not that Le Corbusier's mature work of the 1920s grew from a relationship to one particular culture, but that it was the result, in a "dynamic" sense, of the accumulated engagements with various cultures and different historical periods. I am not concerned here with identifying "sources" that may have influenced Le Corbusier, but with tracing the evolution of Villa La Roche with respect to his journeys. I postulate that the way he saw his modern villa was affected by his first position before his first step on

the journey, as well as by each successive step. Likewise, the architectural promenade, developed fully at Villa La Roche, is shadowed by primary perceptions and particular physical experiences. In other words, each step provides a certain outlook and these accumulate along with the collected visions of the whole journey. As well, each step is built on the previous ones and is to some extent affected by the mood previously produced.. The journey gives rise to a series of visions that create a certain drama which cannot be reproduced if the steps or their sequence are changed. The "architectural promenade", Le Corbusier's experiment with kinetic space, gives a fictional form to Le Corbusier's journeys. "Fictions", writes Ricoeur, "are merely complex ideas whose components are derived from previous experiences."[2] I will first describe the main sequence of Le Corbusier's real journeys. Since my thesis is that they provided the elements which defined the promenade of Villa La Roche, it necessary to define his journeying path.

**Figure 6**

The Jura house as sketched by the young Jeanneret during his early years. An image that lasted for long inside his mind; a live cell projecting up from the midst of the surrounding.

[1] Kurt W. Forster, Antiquity and Modernity in the La Roche-Jeanneret Houses of 1923, 131-153.
[2] Paul Ricoeur, "The Function Of Fiction In Shaping Reality", Man and World 12, no.2: 125.

Northern Italy was Jeanneret's first stride outside his region. Following a custom among architects and artists of his time, and advised by L'Eplattenier, Jeanneret went to Italy between early September and November 1907 to search for inspiration. From Bern to Milan, Genoa, Riviera, Pisa, Pistoia, Prato, and then Florence, his eyes were guided by Blanc, Baedeker, Ruskin, and Taine (all recommended by L'Eplattenier). Strongly influenced by these writings, Jeanneret sketched none of the famous Renaissance examples into his carnets. Directed and limited by his mentor's teachings, he admired and sketched, but he exercised no independent vision. He did not look beyond the middle ages and its

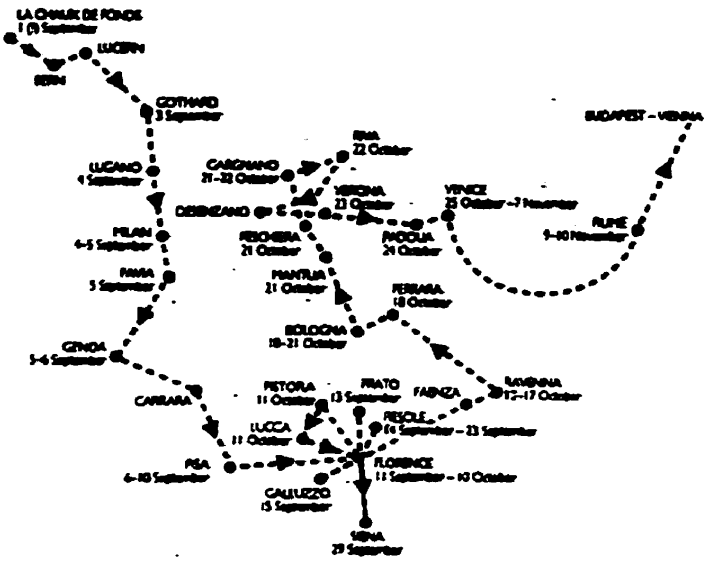


**Figure 7**

A map illustrating Jeanneret's path on his first journey to Italy and Vienna, 1907-1908. (The Creative Search, 67).

**Figure 8**

The type of architecture that interested Jeanneret at that time (mainly decorations) FLC2464.

decorative arts. Ruskin's Mornings in Florence was, for him, the book that "teaches how to see"; and Baedeker was "a lucky find"[3]. When he encountered any difficulty analyzing or understanding an architectural work, a letter to his mentor asking for direction was his way to find a solution:

> " Am I doing wrong? . . . A word from you will help me greatly. . . ." [4]

Consequently Jeanneret's sketches traced only the lines of the Gothic archetypes, and the Gothic artists remained his favorite.

**Figure 9**

St. Mark's statue of Donatello. Pencil and water color (Florence, October 1907).

Following his guides, Jeanneret found himself one day in front of an eleventh-century monastery, the Chartreuse du Val d'Ema, that was to play a significant role in his development. Both Baedeker and Ruskin, like many other writers of their period, devoted some pages to describing the beauty of that place. Besides following the guides' examples, Jeanneret,

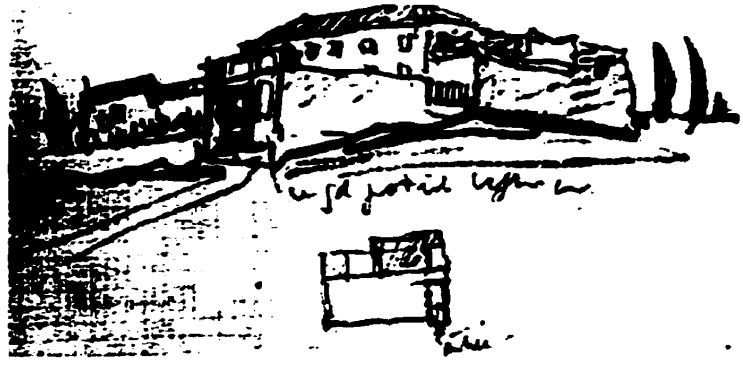

**Figure 10**

The Ema Monastery as sketched by Jeanneret during his first visit to Italy (1907) (The Creative Search, 75).

[3] Letter to his parents in September 14, quoted in H. Allen Brooks, Le Corbusier's Formative Years, 98.

[4] Letter to L'Eplattenier in September 19, quoted in H. Allen Brooks, Le Corbusier's Formative Years, 99.

hoping to reach a deeper regional understanding, maintained the same routine of seeking the arts of the Middle Ages, visiting museums of art, and occasionally reading books. In that three-month journey, he never varied his architectural readings, with the exception of some books that he asked his parents to ship to him at Vienna. In a letter to them, Jeanneret requested some books on Cairo, Cordoba, Grenada, and Michaelangelo, as well as Durval's anatomy. It may seem odd that he asked for this unrelated group of texts, all of which were outside of his usual interests, especially as he was designing two villas, Villa Stotzer and Villa Jaqumet, for his city at that time. More interesting, however, is that the two villas were not conceptually different in design from his first commission (Villa Fallet) three years before.

Another book which Jeanneret read at this time and which would be key to his development, was Edouard Schure's Les Grands Inities. It was sent to him in Padua by L'Eplattenier. Schure's text describes many of the world's greatest prophets and initiators, how they re-envisioned and redirected the ordinary flow of human life, and stood themselves as markers at the rise of many cultures.

**Figure 11**

Sienna Baptistery as sketched by Jeanneret, with much attention to the decoration (FLC 1791)

> All the powerful initiators have perceived in one moment of their lives the radiance of central truth, but the light which they drew from it was

> refracted and colored according to their genius, their mission, their particular time and place.[5]

The insights that Jeanneret gained from reading Schure's work redefined his personality and the path of his career. Schure's ideas enabled Jeanneret to accept, without the need for reconciliation, the antithesis of nature and rationalism. This understanding would have a profound influence on several key elements of Le Corbusier's architectural vision.

After Italy, Vienna was his next stop. At that time, Otto Wagner, Joseph Olbrich, Adolph Loos, Joseph Hofmann and a number of the modern avant-garde architects and artists were all working there. For Jeanneret, this was an opportunity to encounter a new architectural vision. But his own ideas about architecture were still so strong that, even after four months, none of their revolutionary ideas attracted his attention. All their works were ridiculed by him as being "sanitary architecture" or even "toilets", as he described them to his mentor in a letter at that period. Also none of their works was traced in his sketch books, with the single exception of the

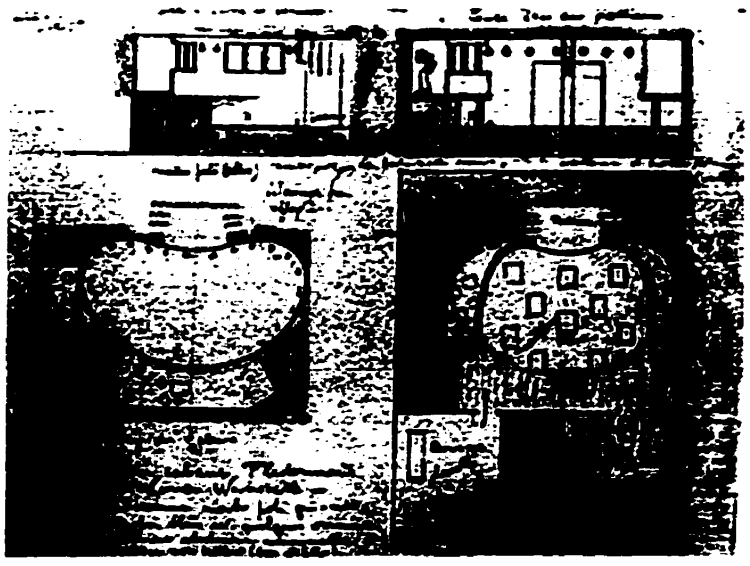

**Figure 12**

Josef Hofman's Kabaret Flederamaus. Pencil and ink with water colour. (Paris, 16 April 1907).

[5] Edouard Schure, The Great Initiates, 169.

plans and elevations of Cabaret Flederamus, a project by Josef Hofmann. Finding nothing "interesting" in Vienna (none of his favorite architectural examples existed in that city), Jeanneret spent most of his time visiting museums and attending musical concerts rather than trying seriously to find an apprenticeship. Until his trip to Vienna, Jeanneret had been following perfectly in the footsteps of his mentor L'Eplattenier who, he believed, having mastered the knowledge of history , "allows us [Jeanneret and his colleagues] to benefit from the great laws that guided the masters."[6]

Unexpectedly, Jeanneret began to see with his own eyes and take his own architectural steps for the first time. By the end of his four-month stay in Vienna, Jeanneret had decided to make his next trip to Paris, regardless of L'Eplattenier's warnings and his refusal to approve that visit. It appears that Jeanneret's personality and his aims began to diverge from those of his mentor. Influenced perhaps by the initiators described in Schure's text, the emerging Le Corbusier decided to "join the circle". The wandering disciple decided to search for the ideal and to expand his vision beyond his mentor's regional scope into a much wider context. Jeanneret's acceptance of the idea of being completely deprived of his mentor's guidance, especially after the tension that had developed as a result of refusing his advice, marked the first twist in his path. This first rebellion may have also been triggered by an inspiration from his previous journeys. One could argue that his decision to explore outside his region was the first impetus that led in turn to a series of reactions culminating in the evolution of a new architectural perception.

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[6] Letter to Albert. December 15, 1907, quoted in H. Allen Brooks, Le Corbusier's Formative Years, (Chicago: University of Chicago Press, 1997), 128.

After seven months in Italy and Vienna without departing from his preoccupation with Gothic, regional, and decorative types, Jeanneret may have begun to feel dissatisfied. Perhaps Hoffmann's Die Fledermaus Cabaret triggered in him a new awareness; otherwise, why would he have kept the design in his memory and sketched it a year later in Paris? This time-delay hints at the reaction that was starting to take place in Jeanneret's mind, a reaction that would be reinforced in Paris when he gained complete independence from his mentor. Jeanneret's journey initiated a psychological struggle. What he had seen as absolute while standing in a fixed state began to lose its aura of absoluteness when he entered the state of motion.

Jeanneret's stay in Paris was marred by uncertainty and restlessness. It is probable that Jeanneret went to Paris to escape the influence of L'Eplattenier. He seems to have had no particular plans, and from his arrival in early 1908 and through the following five months, he made no effort to contact any well known architectural figures or to seek an apprenticeship. It happened only by chance that he began to work with Auguste Perret, and this was the result of another chance encounter with Eugene Grasset, whose book on ornament was well known to Jeanneret. It is possible that the Perrets' new method of construction with reinforced concrete recalled Hofmann's "Cabaret" and the new space created by using the new structural methods. What is certain is that Jeanneret was experiencing a state of inner struggle and that it had to do with his impending break with L'Eplattenier and all that he represented. In his (Jeanneret's) father's diaries of that period, we read: " I also find [that Edouard}. . . envisions life too much as a struggle, a

fight, finds battle at every turn."[7] All his letters from Paris spoke of his internal struggle, and the word "battle" reappeared constantly. He wrote about his isolation from home influences, and revealed his feelings of dissatisfaction which he associated with his need to develop a distinct vision of his own.

The more he stayed in Paris the more he demolished his absolutes. This process brought about a change of attitude towards the Renaissance architecture that he had ignored in Italy and now decided to study in Paris. Before Paris and until that moment, Jeanneret had felt no interest in classical architecture. He had never sketched any of the masterpieces of Bramante, Leonardo da Vinci, Michaelangelo, Donatello, or any of the other key Renaissance figures. He had sketched only what he believed to be good examples of regionalism. In Vienna, he had tried to escape the influence of the Secessionists, a radical movement that may have alerted him to the advancement of the world around him while he was still bound by his master's old ideas. Although now, in Paris, he kept his identity as a Medieval art lover, he began to open his mind to the other periods through the history courses that he audited at the école des Beaux Arts. Besides the Romanesque and the Gothic lectures, which were his favorites, he attended a course offered by Magne on the Italian Renaissance.

Jeanneret was overwhelmed by the need to revise his theories. In an intense mood of rebellion against all that had been defined for him as absolute, he wrote to L'Eplattenier:

---

[7] Eduoard Jeanneret [Senior], Journal, February 12, 1908 , quoted in H. Allen Brooks, Le Corbusier's Formative Years, 152.

"Burn what you have loved, love what you have burnt. . . You, Grasset, Sauvage, Jourdain, Paquet and others, you are all deceitful . . . you do not really know what architecture is all about. . . ."[8]

Struggling through his confusion and uncertainty to articulate what he could not yet envision, Jeanneret could only ask: "What is architecture?". Three days later he wrote to L'Eplattenier again, criticizing his one-directional way of teaching that prevented the students from developing an independent vision: "My quarrel against you, my master whom I love, will be against this error: dazzled and overwhelmed by your own internal strength. . . . my struggle will be against these, my friends, against their ignorance: not that I know something, but because I know that I know nothing."

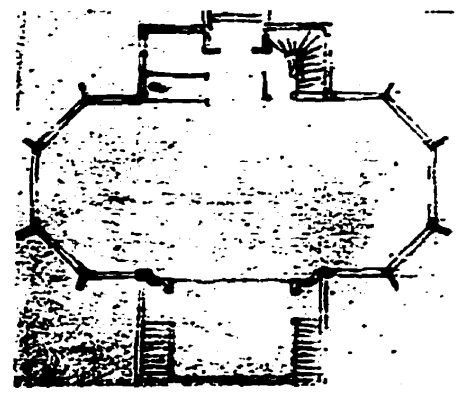

**Figure 13**

Jeanneret 's blueprint for the plan of Perret's bottle house (1909).

After several months in Paris, probably at the beginning of July 1908, Jeanneret started work with the architectural firm of the Perret Brothers, and continued there for a year and a half. It was a totally new experience for him. Auguste Perret became a father figure to Jeanneret, and his new mentor. This time, however, Jeanneret kept the relationship within a frame of a relative independence, which Perret also preferred. Perret, trained at Les Beaux-Arts, had a natural affinity for classicism, but also greatly

[8]Letter to L'Eplattenier , November 22, 1908, quoted in H. Allen Brooks, Le Corbusier's Formative Years, 153.

appreciated the Gothic. He was a more complex character than L'Eplattenier and had acquired a much broader vision (which would be important for Le Corbusier.) Jeanneret found in him a guide who sought to synthesize various opposing visions. His famous *25 bis rue Franklin* building, where Le Corbusier worked with the Perret brothers, is an example of such a synthesis: classical in general while accepting, at both the technical and aesthetic levels, the Gothic understandings. As Le Corbusier commented later: "Auguste Perret in Paris aspired to equip architecture with new means and [was] ready to throw all traditional aesthetic practices into the melting-pot"[9] The possibility of arriving at architectural truth from more than one source was a new idea for the narrowly educated young student. Jeanneret often spent hours at a time with Perret, receiving from him lessons about the underlying concepts and the potentials of some of the classical examples, especially Versailles. He kept his affinity towards the Gothic, but with a new rational understanding drawn from Viollet-Le-Duc. The Dictionnaire Raisonne in hand, he explored Notre Dame de Paris from top to bottom, sketching all its parts in intricate detail.

**Figure 14**

Notre Dame, sketch by Jeanneret between 1908 and 1909. Structural and rational ideas now appealed to him.

[9] Le Corbusier, The Decorative Art Of Today, trans. James I. Dunnett, (Massachusetts: MIT Press, Cambridge, 1987), 134.

Through Perret's influence, Le Corbusier opened himself to the rational, structuralist point of view. In spite of his dislike of mathematics, he audited courses in mechanics, statics, and strength of materials at Les Beaux Arts. He wrote to L'Eplattenier about his love for these new courses which he described as difficult but beautiful: "these mathematics—so logical, so perfect!" He added: "Paris cries out to me: logic, truth, honesty." In such a mood, Jeanneret was introduced by Perret to reinforced concrete. He understood that this new method of construction made possible a new way of distributing loads: they could be transferred through well chosen piers instead of the conventional massive bearing walls. The importance of the new materials and their role in finding new possibilities was one of the most important experiences that Jeanneret gained in Paris. Projects such as "La Maison Bouteille", "The Penthouse", "La Saulot", and others, in which reinforced concrete played a major role, attracted his attention. It appears from the note that he wrote beside a sketch of La Salout that the idea of the bottle house had a special effect on him: "a house is a bottle, this is an expression of Perret's, not of mine."[10]

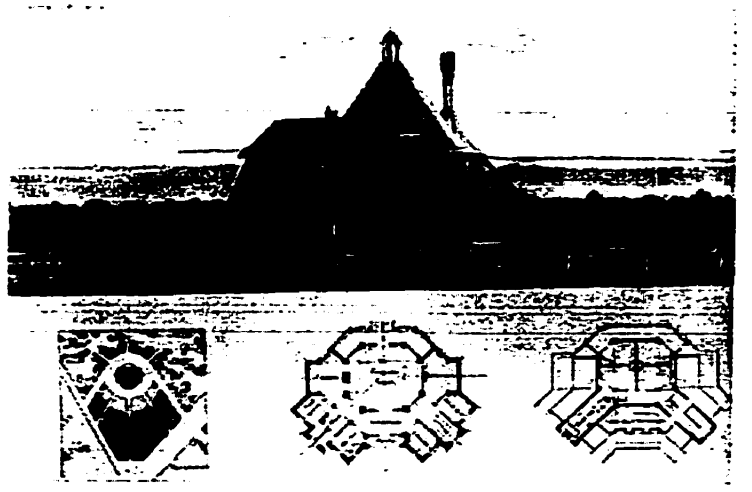

**Figure 15**

Villa Salout, designed by the *Perret Frere*, published in *L'architecture*-Paris 1909.

[10] "Une maison c'est une bouteille, est un mot de Perret, pas de moi."

Viollet-Le-Duc's *Dictionnaire Raisonne* played a major role during that period. He read the book, which illustrates the evolution of Gothic construction, gaining insights into the medieval experience and its evolution towards a new method of construction. The text matched his mood of logical vision and structuralism during that twenty-one months in Paris. Gothic remained a principal reference, and he tried to follow its example of structural logic but within a new social and material context. Viollet's arguments would have contradicted his previous vision of Gothic architecture as inspired by Ruskin. Indeed, the opposition between the two visions is expressed in the difference between his earliest sketches and his late Parisian ones. Unlike his two dimensional sketching of buildings in Italy that emphasize the decorative forms, even on the structural elements, his Parisian drawings show more interest in the structural effect, even in plans and perspectives.

**Figure 16**

Page from Jeanneret's notebook for a course that he took at La *Bibliotheque Ste. Genevieve.* (Paris 1908).

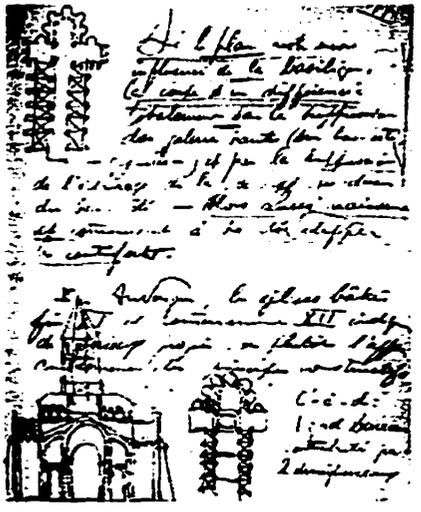

**Figure 17**

Analytical illustrations in one of Jeanneret's sketchbooks describing the structural system of a Gothic cathedral (Paris 1908).

Just before the end of 1909, Jeanneret enjoyed a few months of rest around Christmas time at home in La Chaux-de-Fonds. His next step, in April 1910, was to Germany where he encountered another progressive school. The famous Deutscher Werkbund's debates between Hermann Muthesius and Henry Van de Velde at the end of the first decade of the century attracted the young architect's attention. These debates between the machine style and standardization supporters, on the one hand, and those who followed the handicraft aesthetic and tradition of artisan revivals on the other, were heating up in Germany at the time.

**Figure 18**

25 bis rue Franklin. A famous project by Perret that gathered many classical and Gothic aspects of design. (FLC)

After more than half a year of roaming between museums in the arid but productive German industrial environment, Jeanneret joined Peter Behrens' architectural firm. The new work place, which had witnessed the training of great modernists and modern pioneers such as Walter Gropius and Ludwig Mies Van der Rohe, was like a machine that transforms raw materials into completely shaped forms. Jeanneret entered Behrens' office a medievalist and left it a classicist. The environment of the work place was decisive to the extent that it reduced his previous mood of uncertainty. He declared his "evolution" to

his first mentor in an extremely long letter: "Gothic is completely dethroned . . . . classicism is enabled, and Louis XVI is crowned. . . ."[11] He continued in the same letter:

> [At] *Chez* Behrens, the shock was brutal . . I arrived at Behrens' knowing almost nothing about what was a style. . . . Behrens rigidly insists upon rhythm and subtle proportions and so many other things that were entirely unknown to me. . . .

During a five month full-time job (the only one he ever held)[12] in Behrens' office, Jeanneret experienced a style of work based on hierarchy, efficiency, and accuracy. Unlike Perret and L'Eplattenier, Behrens was a real "boss" who put everything in order. Even his designs were governed by accurate order derived from the classical tradition of proportions. Different elements of designs were related to each other through regulating lines that governed not only the main architectural elements but even furniture and minor accessories. For example, for the AEG-German General Electric project, commissioned to the firm in late 1910, everything related to the project, even some of the minor products, were designed in Behrens' office. The whole project was governed by regulating lines that gave a sense of unity and hierarchy. This lesson was absorbed by Jeanneret, and he sought to develop his understanding by reading C.A. Drach's work on architectural proportions (first published 1897) that he found in a library at Munich a few weeks after leaving Behrens. The discovery of proportions had a profound effect on him, and in a letter to L'Eplattenier he expressed his passion "to create volumes which play

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[11] Letter to L'Eplattenier January 16, 1911; quoted in H. Allen Brooks, Le Corbusier's Formative Years, 244.

[12] Le Corbusier had worked part-time with Perret, and devoted the rest of his time to visiting museums and drawing.

under the light in rhythms based on geometrical shapes; joy of form rediscovered for a feast of the eyes" (The effect of that vision on his future architecture will appear in the following two chapters).

By the end of the Behrens' apprenticeship (mid 1911), Jeanneret's mind was considerably more ductile. He had assimilated all the major contemporary visions in the architectural world of the 1900s. A new figure in his life was William Ritter, an older friend whose broad vision, various travels, and notions on art and art history, especially painting, affected Le Corbusier's views. Another well-traveled friend, but nearer to his age, was August Klipstein whom he met in Germany. The latter was to accompany Jeanneret on his next voyage and had a secondary role in proposing it. It was, however, Alexandre Cingria-Vaneyere's Les Entretiens de la villa du Rovet; essais dialogues sur les arts plastiques en Suisse romande (Geneva 1908) that played the primary role in defining the next step in Jeanneret's journey. The book asserted that the Suisse romande (French-speaking area of Switzerland) had Greco-Latin origins that had never been polluted by the succeeding German and Italian influences because of the remoteness of its people in the mountainous Jura region. Jeanneret believed the notion and he felt compelled to investigate it, especially as his family name was 'Gris', which indicates

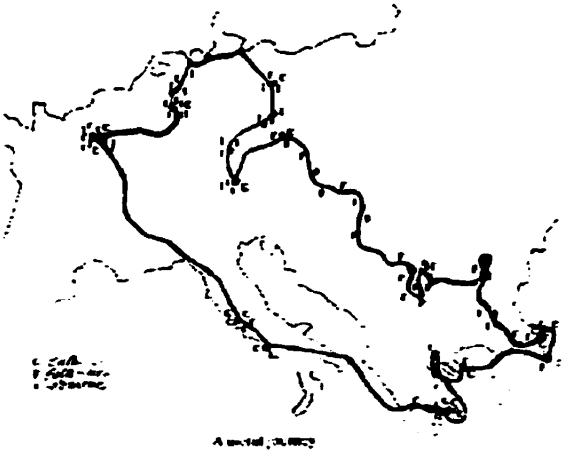

**Figure 19**

Map of Jeanneret's trip to the East.

a Greek origin. His desire for a distinct identity remained his dream, and he decided to search for its source in the proposed area. Klipstein's role was to suggest a wider tour to encompass Turkey and the Balkans, the domicile of the Mediterranean vernaculars.

Jeanneret set out on the journey that was later known as 'Voyage d'Orient' late in May of 1911 with Klipstein as a companion. The path started at Dresden, continued to Prague, Vienna, Vac, Budapest, Baja, Belgrade, Nis, Bucharest, Turnovo, Gabrovo, Adrianople, and then to Constantinpole and Bursa before returning back through Greece and Italy to his native city, La Chaux-de-Fonds. The voyage was completed at a relatively swift pace: the immense territory was crossed within seven months (compared to the twenty-one months in Paris and the twelve in Germany.) Jeanneret produced a huge number of sketches in that relatively short period, in addition to a diary (that was published much later) in which he recorded his impressions and reactions. The accelerated pace of the journey suggests the sense of urgency that was developing in Jeanneret's mind.

**Figure 19**

A ceramic pot from Serbia, one of many that Jeanneret bought throughout his journey (1911).

Much of what he saw on that journey and its effect on the development of his conceptions will be discussed later. What is of concern here is the new way of looking

into architecture that he developed in the journey to the Orient. Jeanneret wanted to expand his vision to encompass the true origins of being. He was no longer looking at the thing itself but to it's origins, and was seeking the unpolluted expression of those origins. Purity for him thus became a synonym for originality, and he mentioned that in his travel diaries. In the third chapter of Journey to the East he describes the pottery-making tradition in Serbia, Bohemia, and Romania with great enthusiasm except for the commercial examples that he sees as: "humiliating . . . too much china spotted with the shameful ornamentation of Louis XV seashells. . . We had to flee from the invading and dirty 'Europeanzation' to the tranquil refuges where the great popular tradition survives."[13] In another revealing situation at an early stage of the journey, he conveyed his search for originality to the captain of the boat whom he asked about "a country that had retained its integral character."[14]

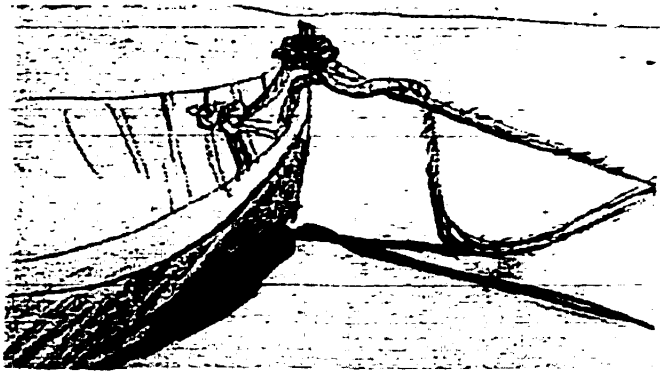

**Figure 21**

**Boats fascinated Jeanneret since his early years.**

Jeanneret no longer needed to follow another's path or to take any vernacular form as an absolute. His aim now was to use all ends as means for his own objective. He began to define his own journey of life in which all experiences would become relative. A new subjective vision was evolving inside him and expanding with each step,

[13] Le Corbusier, Journey To The East, trans. Ivan Zaknic (Massachusetts: MIT Press, Cambridge,1989), 15.

**Figure 22**

Sketch by Le Corbusier. (Le Corbusier,Lui-Meme, 101).

breaking with any formalism learned at La Chaux-de-Fonds. L'Eplattenier had completely lost his authority over Jeanneret. The Mediterranean vernaculars, pure inventions unpolluted by any "naïve" attempts at additions, provided a kind of synthesis or original abstraction.[15] The journey to the East had the character of an initiation—the experience of an expanded vision. In his readings of Schuré's The Great Initiates and especially Ernest Renan's Vie de Jesus (1863), he responded to the portrayal of Jesus as a human being who revolutionized the world's vision:

> "His idea was the most revolutionary ever hatched in the mind of man. . . . and his success in uniting two completely opposed conditions, that of the ideal and that of the reality, was a singular achievement."*16*

Le Corbusier was not interested in the prophets' ideas from a religious point of view, but he was interested in their role as initiators in the shaping of human life.

Jeanneret's understanding, through Schuré, of the inevitability of unreconciled opposites played a significant role in his work, as will be demonstrated in the next two chapters. Both Renan and Schure converged on asserting that it was one of the

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[14] Ibid., P. 21.

[15] In Journey to the East Le Corbusier describes the vernaculars of the peasants as pure creations: "The peasant knows how to create like a great artist, we found the offerings of the mercahants most humiliating, and the sway of fashion over soul still naïve. . . ."(15).

characteristics of the great initiators. Indeed, for Jeanneret, all the knowledge of previous pioneers would become a ground or a bridge over which he, a new hero, would cross. Le Corbusier decided to promenade between different cultures to gain a unique perspective; his means to find a vision for the future would be through mastering the past. Nietzche's "Zarathustra" inspired Jeanneret, and his marginal marks highight the following sentences in the prologue of Nietzsche's *Ainsi parlait Zarathoustra* (Thus Spake Zarathustra):

> I love . . . those who sacrifice themselves to the earth in order that one day the earth will belong to the superman. . . . The creator seeks other creators like himself, those to inscribe new values on new codes of value. . . . I will join up with other creators, to those who reap a harvest and rest. . . .
>
> . . . . . .
>
> That which is great about man is that he is a **bridge** and not a goal.[17]

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[16] Ibid., P. 129-131.

[17] Friedrich W. Nietzsche, Thus Spake Zarathustra, trans. A. Tille (London: J. M. Dent & Sons , 1958), 8-14.

# Chapter Two: Bridging to Villa La Roche.

## 2.1. Synthesis

After his four-year journey, Jeanneret, with his journals, his striking memories, and his carnets (sketch books), found his way back to La Chaux-de-Fonds. The ambitious young architect preferred at this time to carry all his plans and aspirations back to his home. Although his ambitions and ideas much exceeded the limits of this small city, he was wise enough to give them time to mature. La Chaux-de-Fonds, the starting point of his vision quest, became a temporal refuge from his mental struggles. It was also the only place where he could be assured of finding work, and would become the experimental lab where he would carry out his first attempts to initiate a new esthetic of architecture.

Jeanneret was no longer interested in ideas of regionalism; this was clearly demonstrated in the key projects he executed at this time. After arriving on November 1st, 1911, he started immediately to design his parents' villa. Weeks later he would receive the commission of Villa Favre-Jacot. and finally, in 1916, the commissions of Villa Schowb and La Scala theater. Unlike his first three projects—Villa Fallet (1905), Villa Stotzer and Villa Jaquemet (1908), where the decorations of the Jura-region motifs covered the surfaces and were integrated in all the details—the new projects were rendered classically. Employing the classical elements was Jeanneret's first means of crossing over from specific cultural expression to universality. For him at that time, no

other form could surpass the classical expression as a synthesizing language for architecture.

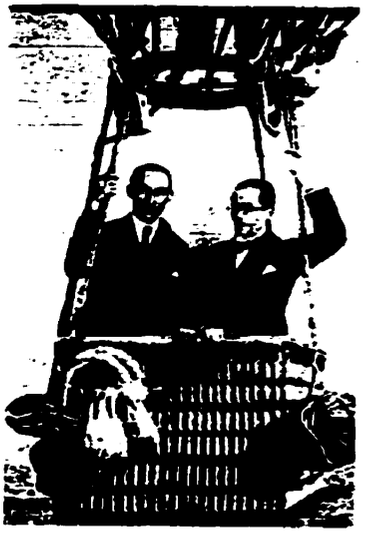

**Figure 23**
Jeanneret and Ozenfant (Esprit Nouveau).

The next step for Le Corbusier was to widen his activities in a major city of international importance. His interest shifted to Paris. In 1918, through his mentor Auguste Perret, he met the artist and philosopher Amedée Ozenfant. The sophisticated and versatile Ozenfant, with his wide philosophical interests and, more importantly, because of his solid reputation in Paris, fascinated Jeanneret. The role of Ozenfant in Le Corbusier's metamorphosis was primarily to introduce him to the basic principles of a new purist movement.[1] With Ozenfant's encouragement, the two painted together and shared their visions. The result of their relationship was a series of paintings and the writing of the L'Esprit Nouveau articles which helped Le Corbusier to shape his thought experiments into a purist "beyond cubism" point of view. He realized the importance of the purist movement and its power to open for him new perceptions of reality. A letter to Ozenfant during that period reveals his feelings: "I feel that I am at the threshold of discoveries, while you [Ozenfant] are concerned with their realization."[2] This purist vision would be, for Le Corbusier, the corner stone in shaping the series of 1920s villas in general and

[1] The name Le Corbusier was proposed by Ozenfant as a pseudonym for Jeanneret's articles of L'Esprit Nouveau. For me, this name reveals the emergence of a new ambitious character with wider scope of thinking. The switch between the two names in the text is meant to disclose the difference between the two characters.

[2] Le Corbusier to Ozenfant, Aujourd' hui (Paris) no. 51 (June 1918): 14.; quoted in Jacques Guiton, The Ideas of Le Corbusier in Architecture and Urban Planning (New York: Braziller, 1981)

Villa La Roche-Perret in particular. Over the course of his career, he would develop the principles of the purist movement as the universal language with which to present his new architectural type.

## 2.2. Villa La Roche

> *I am going to show you how architectural sensations are produced by our reaction to geometric forms...*
>
> Le Corbusier, Précisions sur un état présent[3]

Seven years after his arrival in Paris, and after completing Ozenfant's studio-house project and another small villa at Vaucresson, Le Corbusier received in 1923 his first big commission, the Villa La Roche. This commission was important for several reasons: it was relatively large; it was a house project (the significance of this will be illustrated later); and in the course of its execution, it witnessed several changes in the commissioners, budgets, programs, and even the site shape. By closely following and describing the different phases of the design of the Villa La Roche, this thesis will explain the objectives of the designer. The description will take the form of a journey through a dynamic space, a promenade that can be experienced through a series of conflicting moments.

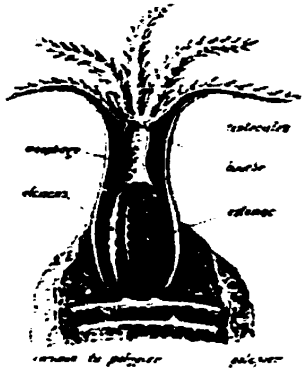

**Figure 24**

Organic symmetry
The Decorative Art Of Today, 177.

- **Symmetry Vs. Axis**

In creating a new concept of design, Le Corbusier did not abandon completely traditional design metaphors. Experimenting

[3] Quoted in Jacques Guiton, The Ideas of Le Corbusier, 23.

with different strategies, he finally derived new codes from traditional elements instead of merely repeating them. The new codes articulate a new mode of being. Le Corbusier's journey became a bridge for him to cross over into a position that was new yet based on previous ones. To create a higher construction, the existing base must be added to genuinely. To invent anew, the lessons of the past must be mastered. One of the lessons that Le Corbusier examined in his journeys and later developed is 'symmetry', which provided the basis for his new theory of "axes"—a principle that aimed for motion instead of static immobility.

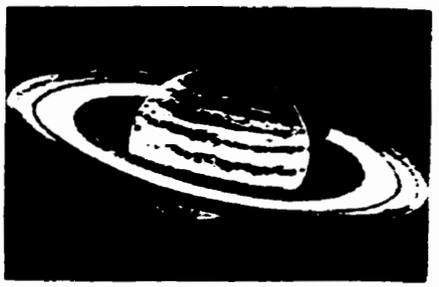

**Figure 25**

The macrocosm is symmetrical in its structure. An illustration from The Decorative Art of Today. *181.*

Le Corbusier became aware of the principle of symmetry early in life through his love of nature. It was a principle that he would never abandon but would later synthesize to produce a new conception of beauty in architecture. Symmetry as an essential component of design and structure was fundamental to Jeanneret's early education in regionalism with L'Eplattenier, where the rule was rendered plainly in the Ruskinian descriptions of the Gothic masterpieces. Later, at the École Des Beaux-Arts he studied the classical dogma which upheld symmetry as an essential element

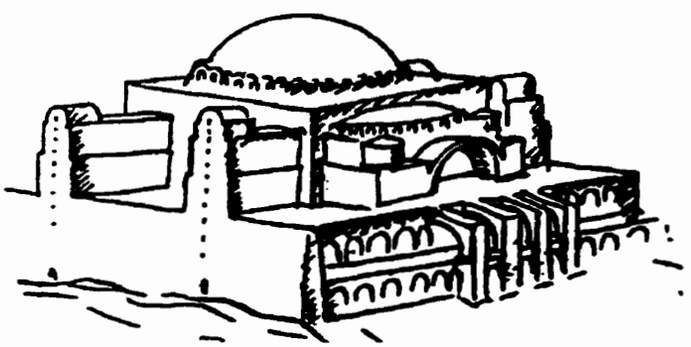

**Figure 26**

St. Sophia as sketched by Jeanneret: beauty within a symmetrical composition.

for maintaining beauty. All the projects that Le Corbusier worked on in the Perret Brothers' firm were strictly submitted to the rules of symmetry. As well, in Behrens' office, symmetry was asserted firmly within a classical context where the rules of proportion in general were implemented in all the designs. And finally, during his journey to the East, Le Corbusier discovered that symmetry has universal status as a principal element of beauty. The universality and the wide cultural acceptance of the idea of symmetry gave it the power of truth; and that power gave it, for Le Corbusier, credibility for a new architectural type.

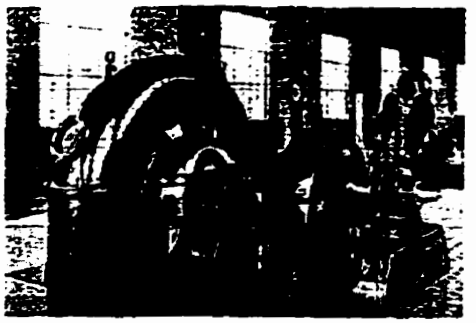

**Figure 27**

A turbine, a machine that fascinated Jeanneret for its productivity based on purity and axiality.. (Towards A New Architecture, 281).

Le Corbusier observed that the universality of symmetry exceeds the limits of cultural and traditional thinking to find expression in the organic, the cosmic, and even in modern machinery. He was conscious of an aesthetic in man-made machines, where the rule of symmetry was implemented successfully. But this was not a fixed symmetry; rather, the machine was based on motion collected around an axis. The machine, created by

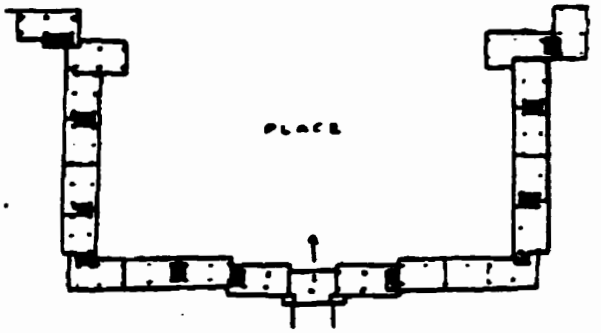

**Figure 28**

The collective plan of the Dom-ino cells that appear in an overall symmetry. The plan allows for free movement of the cells, which can break the overall symmetry while each cell maintains its local symmetry.

human logic, conquered static symmetry by means of the dynamic axis, and it had the potential to set the whole world in motion.

On the basis of these observations, Le Corbusier decided to rethink the order of a building. He realized that examples of this 'machine idea' existed in many historical periods, and he established parallels between the machine and many of the major monuments of the history of architecture: the Parthenon, the Pompeiian house, the Luxor temples, the Turkish mosques, and any others from various civilizations. Reassessing these structures according to a newly synthesized architectural theory of dynamism, he declared: "An axis is . . . the means of every human act . . . . The axis is the regulator of architecture. . . . Architecture is based on axes. . . . "[4]

An axis penetrates various forms with various shapes and consequently different symmetrical positions. As a stretched line, it has the power to penetrate space and extend motion. Along it, the stroller confronts various events in its journey through different spaces, although collectively it masters them all. The real contradiction, I believe, is in moments of thresholds when it passes through distinct forms of space. At each of these moments it receives a double identity: part of the static space that it penetrates and path for movement and dynamism.

[4] Le Corbusier, Towards A New Architecture, 187.

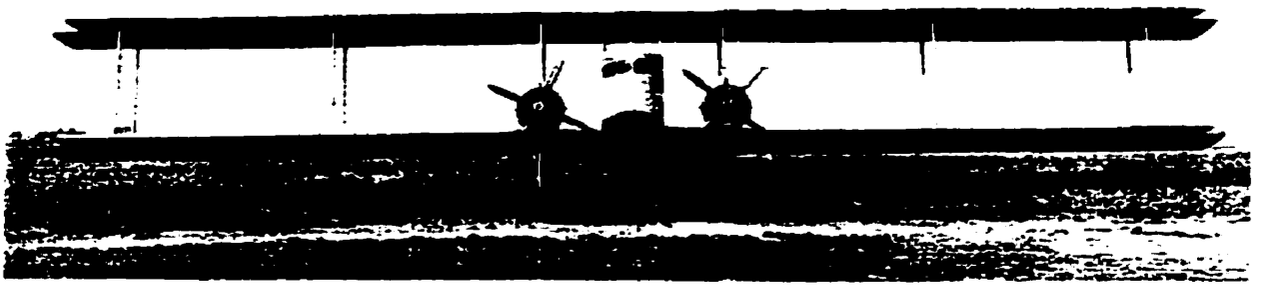

**Figure 29**

A man-made flying machine. The new aesthetic, based on universal laws of symmetry and efficient axis, fascinated Jeanneret, and he used such illustrations frequently. (Towards A New Architecture, 121).

Another important feature of the axis is that it draws a line of separation between two opposite directions. The left side and the right side face each other at its borders, and the tension between the opposing sides creates a balance and a direction of vision. An axis can establish dynamic local symmetries that accompany the traveler throughout his journeys, although the journey itself is probably not symmetrical overall. Villa La Roche as a journey has many of these properties—a "non-arid symmetry", as Le Corbusier used to call it. For him, constituting the axis is essential for establishing an ambulatory architectural experience, "the first human manifestation . . . . The axis is in the intention . . . it links together the main volumes which are clearly stated and differentiated from one another."[5]

[5] Le Corbusier, The City of Tomorrow, trans. Frederick Etchells ( London: John Rodker,1929; repr. London: The Architectural Press, 1971), 187-189.

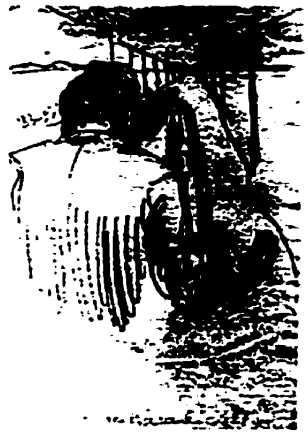

**Figure 30**

Cart-driver sketched by Jeanneret while riding behind on his way to Kazanalauk.

**Figure 31**

Local symmetry seen from inside a Pompeiian house (1911).

Primarily, Le Corbusier initiated his designing ideas by grouping pure forms and assembling them symmetrically. Starting from symmetrical masses, he allocated several axes of motion inside his buildings that served to transform static symmetry into dynamic asymmetry, as in the human body which is symmetrical in form but asymmetrical in movement. Going back to the early sketches for Villa La Roche, one notices the attempts to group four houses (the commission began with four different clients) in a complex symmetry. Throughout all the changes in the programs, the same intention was asserted: first a symmetry was constituted, and then it was accommodated to the dynamic rule of the axis of movement. Symmetry was not kept within the arid conventional forms. The whole building collectively, by its L-shape, escapes the overall symmetrical form; nevertheless, it consists of several local symmetries that collectively constitute a complex asymmetrical structure.

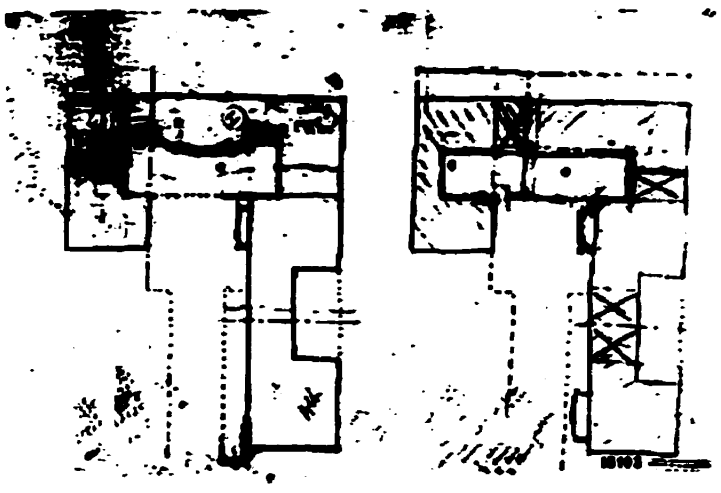

**Figure 32**

An early grouping of the four villas of Villa La Roche-Perret shows an unconventional symmetry within overall asymmetry. One symmetry was established between the two connected villas at the south.; another between the third and part of the fourth villa; while a distinct symmetry was kept for the last villa. The grouping, although imposed by the site shape, can be related to the "Dom-ino" approach. FLC 15103.

Le Corbusier's journeys taught him how to distill conventional symmetry into its useful essence. The plans for Villa La Roche at that early period of design show several axes, each of which mirrors two equal, but not necessarily identical, local elements. This design can be seen as a development of the traditional system of symmetry. Le Corbusier's aim was to encourage dynamism while maintaining the conflict between mental and bodily action (as will be made clear in the description of the internal space of the villa). He did not allow symmetry to tighten the movement within the space or to eliminate essential elements, but developed it to serve his aims. The complexity of the overall system can also be seen in axes which integrate parts that are shared in two adjacent villas, or which establish symmetry within a smaller space that itself belongs to a greater system. What makes the symmetry complex, then, is its existence in the parts as well as in the whole. Symmetry is established in the separate organs in addition to its cohesive integration and development according to axes in the overall structure.

We learn that everything is arranged according to principles consistent with the whole: that every organism is a kind of link in the chain of variants around the axis between two poles, variants which, responding to a single factor, establish a series: a coherent system varies in accordance with the countless possible sets of combination. [6]

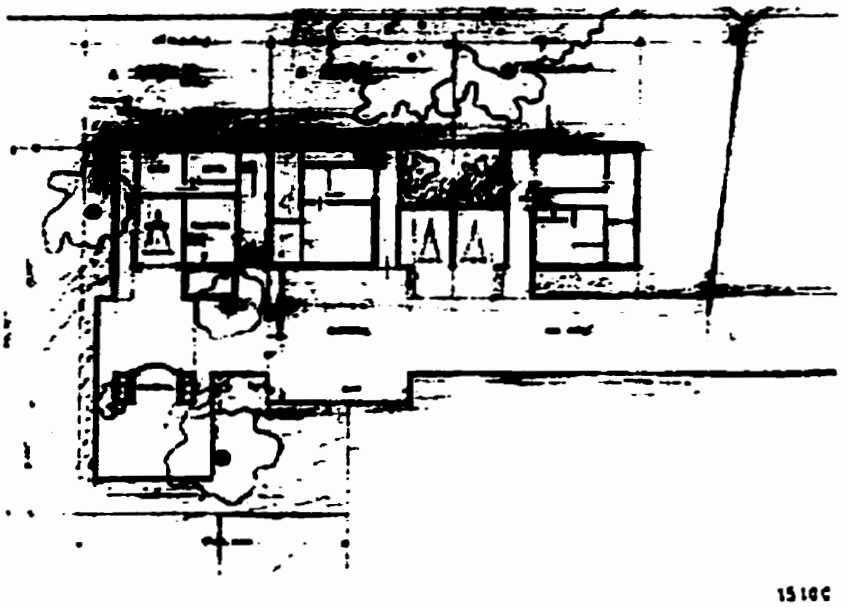


**Figure 33**

FLC 15100. Another stage of Villa La Roche with three connected houses. The asymmetry of the plan is a development of a flexible symmetry that is maintained between the two connected houses facing the street. The axis of the third house is an extension of the axis of the street dividing two dissimilar wings of the house.

A comparison can be made between Villa La Roche and Le Corbusier's early Dom-ino idea of 1915. In the primary Dom-ino design, he introduced a structural system based on freeing the columns from the outside wall (Figure 29). The row of free-standing columns inside the dom-ino house established an early conception of a stretched axis inside the dwelling place. This new system, based on linearity, proposed a freedom of extension in all directions. The axis was no longer arid; that is, it could propose any shape according to the will and the external conditions.

[6] Le Corbusier, The Decorative Art of Today, 175-177.

The Dom-ino is a dynamic game played within an overall order. The flexibility of the Dom-ino system is demonstrated by its ability to produce a variety of dynamic spaces. In that primary proposal, Le Corbusier expressed his early interest in continuity, flow, and dynamism. As will be illustrated in the next chapter, this idea had the potential to redefine the conception of space in terms of dynamic continuity.

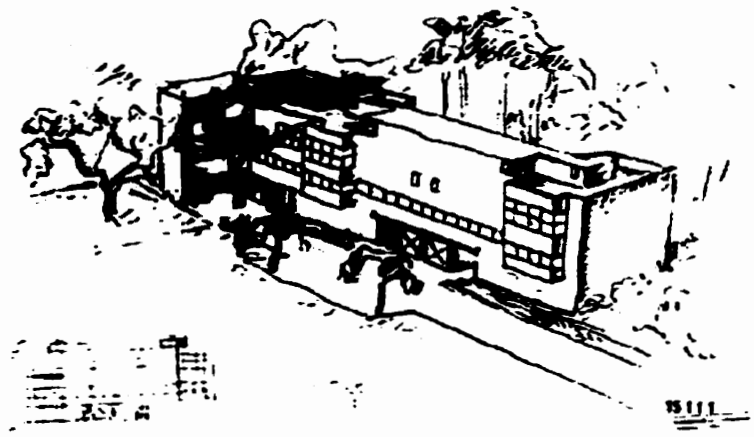

**Figure 35**

FLC 15111. Semi-final proposal for the facade still showing strong symmetrical expression.

Instead of massive framing walls, well chosen, relatively small supports left the space open, to be defined by light, removable partitions. The new system meant different possibilities leading to more probabilities of motion and satisfaction.

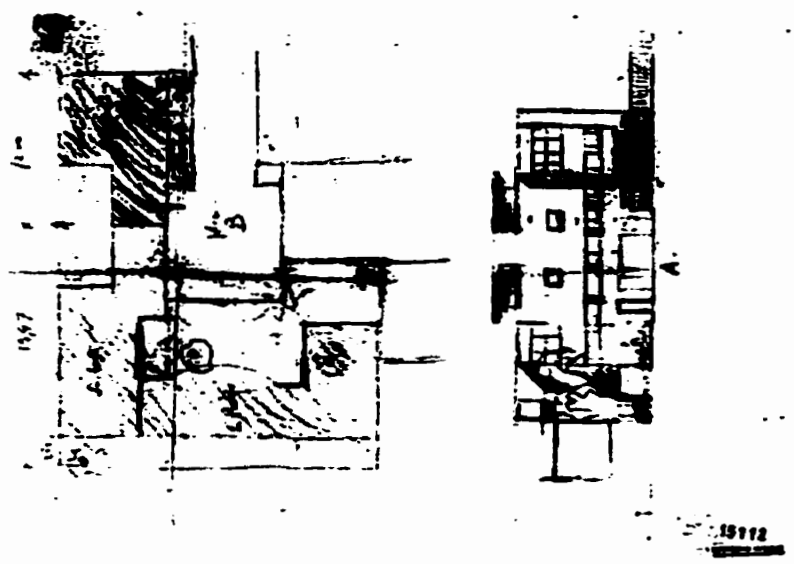

**Figure 34**

FLC 15112. A primary proposal (April 1923) for the facade of Villa La Roche displaying strong symmetry (compare to the completed facade that tended towards asymmetry).

The facade of Villa La Roche reveals the idea of the plan's arrangement. A flexible symmetry rules its configuration. The April 1923 proposal for both the layout grouping and the facade upheld a strong symmetry, as shown in the drawing FLC 15112 (Figure 34). Another strong symmetrical expression is shown in the later FLC 15111 drawing (Figure 35). The design maintained a line of symmetry passing in a solid line between the two garage doors and then extending to divide the continuous ribbon window of the second floor and the two rectangular windows of the third floor. (Notice the similarity of both sides of the facade, even between the two symmetrical jutting boxes.) Figure 36 (FLC15232) shows the asymmetrical final elevation. In that drawing, four Corbusian-type square windows were arranged along the second level instead of the two rectangular windows placed near the middle, and the right projected part was contrasted with a recessed entrance at the left. Each of the two wings (one tall, narrow, and projected outwards; the other shorter, wider, and recessed inwards) and the middle plain section has it's own axis of symmetry; and together they constitute an overall dynamic symmetry.

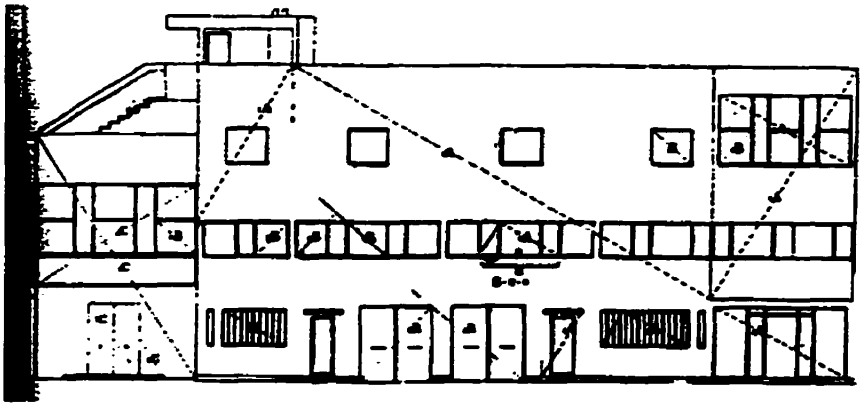

**Figure 36**

FLC 15232. The final proposal for the facade of Villa la Roche. The regulating lines on its surface keep unity within the diversified elements of the facade. (Notice also the existence of various symmetries such as the one in the projected block, another in the recessed left part, and the major one in the main block). The recession and projection of some elements of the facade helped to assert the dynamic feeling of the whole.

In spite of independent local symmetries, the whole is kept in harmony and within a continuity through the unification produced by the axes that lead to a continuous chain of spaces. The whole chain has an overall symmetry while established as an assembly of various parts, each having its own symmetrical identity. To take the facade as an example, each floor or level is treated as a separate layer having its own independent arrangement of openings; while all levels fall under the governing and unifying symmetry of the whole building, which asserts the idea of continuity. The continuity of the facade is sustained by the continuous ribbon window having an alternative arrangement of rectangular and square windows. It moves from the extreme left to the extreme right, finding a form of continuity in both wings. The idea of continuity further asserts itself in the regulating lines that treat the two villas as one body. This classical tightening of the whole facade with regulating lines indicating proportions was one of Le Corbusier's early lessons that was implemented in the new synthesis. Behrens was strict in asserting the importance of keeping the entire drawing of any architectural work under a system of regulating lines for the sake of maintaining proportional unity. Le Corbusier absorbed the message and later described it as ". . . one of the

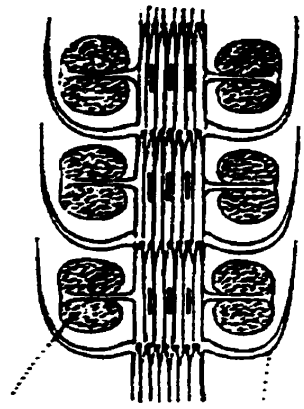

**Figure 37**

One of Le Corbusier's organic abstractions (My Work, 155).

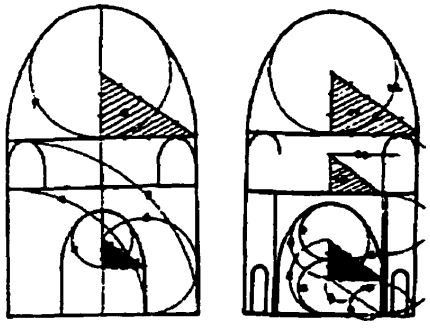

**Figure 38**

Geometry as a relationship between pure shapes, each having its own symmetry, all linked together by a governing axis. (Towards a New Architecture, 76).

decisive moments of inspiration [and] . . . one of the vital operations of architecture."[7] Not only did this operation collect all the different symmetries within one body, a notion which might have an organic origin, but more, it asserted the unity through the manifestation of geometry which is the basic language of all human perception.

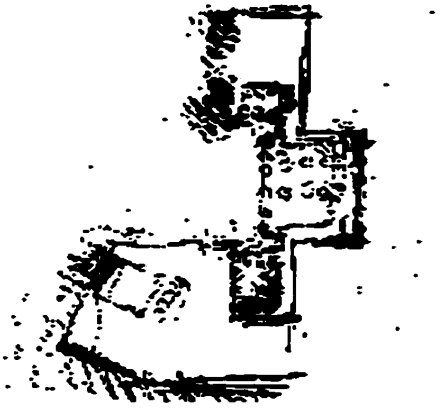

**Figure 39**

A history lesson from the journey to the East. The Acropolis and its monuments fascinated Le Corbusier by their purity, balance, and invention. The internal "free" columns determined an axis that penetrates a genuine symmetry.

### 3.2.2. Purism

Symmetry does not contradict the idea of purism; on the contrary, it asserts its existence because all pure shapes are symmetrical. Symmetry and ornament are not synonymous, although both were implemented in the classical dogma; the latter, however, was dependent on the former—not the reverse. Symmetry was seen as a universal law of balance, the latter (by Le Corbusier) as a false impression of "non healthy" luxury, "an accidental surface modality, . . stuck on to guise faults"[8].

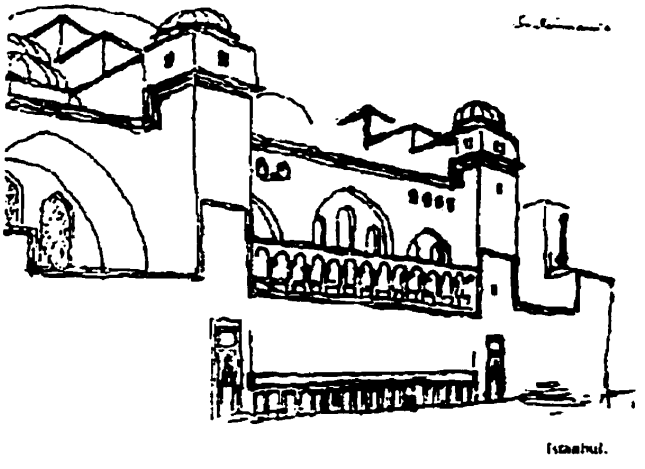

**Figure 40**

Suleyman mosque as sketched by Jeanneret in his journey to the East - 1911.

[7] Le Corbusier, Towards A New architecture, 75.
[8] Ibid., 115.

Le Corbusier did not follow blindly all the trends that he saw to build his new architectural type, but he tried to make use of what he believed to be 'truthful'. He criticized the use of decoration in buildings, asserting that it had no *raison d' être*, and that it was used in most cases to hide defects and impurities. Le Corbusier considered decorations to be "useless" additions unrelated to the building, added to give a false impression of purity. To establish his new architectural type, Le Corbusier followed the same rules of purism that can lead to universality of understanding. Purism is the simplest expression of the power of geometry: logic, clarity, and simplicity are its leitmotivs. In the building, each element was introduced in its simplest practical form with no decorative ambiguity. Facades were cleared of all conventional decoration and left as a combination of primary forms. Windows and doors were not an exception, and they had no decorated lintels or frames. Symmetry was not forced, but worked as the primary regulator. To display the villa of La Roche with maximum purity, the entire facade was whitewashed. The same whiteness had attracted Jeanneret in his journey to the East, where it dominated most of the vernacular buildings of the Mediterranean: "In the course of my travels I found whitewash wherever the twentieth century had not yet arrived. . . ."[9] The white color is internationally accepted as the most pure of all colors. Most, if not all, cultures

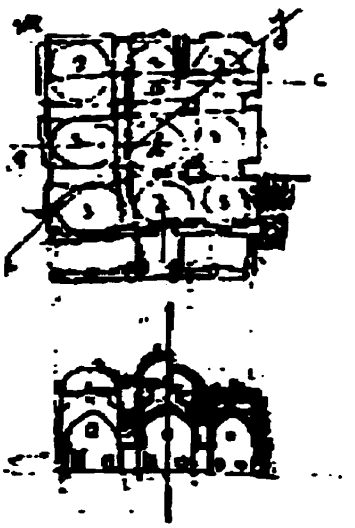

**Figure 41**

A sketch for a Turkish mosque by Jeanneret. The line of symmetry shows his early attention to the idea.

[9] Ibid., 189.

embraced it as a symbol of purity that is celebrated by the sunlight. Moreover, it is the color that has the potential to reflect all other colors. Le Corbusier saw white as the ideal choice for an international style that combines the virtues of most cultures and reflects them all: "Whitewash is the wealth of the poor and the rich—of everybody, just as bread, milk and water."[10] The earliest reference to whitewash goes back to the summer of 1911 in Turkey where, in front of the Suleyman mosque, Jeanneret described the interior and exterior components of the building: "All these things are clothed in a majestic coat of whitewash. The forms stand out clearly; the impeccable construction displays all its boldness."[11]

White covered all the surfaces of villa La Roche, exterior and interior. It was stretched over the body of the whole building seamlessly like a membrane. Simple windows, having no marks or frames, seemed to "pierce" the surface (as Kurt Forster described them)[12]. The organic resemblance was further enhanced by the curved gallery wall which appeared as a 'swelling' in the body resulting from some inner vital activity. As in all organic bodies, the only openings in the outside membrane are the pierced inlets that insure the vital but controlled exchanges with the surrounding environment. The membrane barrier serves as a regulator for the outside/inside relationship. Purity of expression was necessary for the facade to work as a surface that hides and protects the inner organs that are their source of life. The surface was rendered plainly to reflect the pure arrangement of the interior. To borrow Le Corbusier's "organic" expression, the

[10] Ibid., 192.
[11] Le Corbusier, Journey To The East, 100.

facade can be seen as "natural protective organs (skin and scalp)"[13] that protect the inner vital order.

### ♦ Exploration:

> I have decided to make beauty by contrast. I will find its complement and establish a play. . . . I will make people think and reflect. . . .[14]

The most exciting aspect of villa La Roche lies in its interior. The villa was designed to be inhabited by living, moving, and thinking minds and bodies. The interior constitutes the vital activities which cannot be explained but require an actual journey. The conflict between body and mind institutes the opposing characteristics of journeying, yet the same conflict establishes a balance by allowing thinking and motion at the same time. The combination of body and mind in that journey inside the building, as well as in any journey, gives depth to the exploratory mission trekked by the body and

**Figure 42**
A view from outside villa La Roche.

**Figure 43**
The facade of villa La Roche as seen from the local street.

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[12] Kurt W. Forster, Antiquity and Modernity in the La Roche-Jeanneret Houses of 1923, 131-153.
[13] Le Corbusier, The Decorative Art Of Today, 72.
[14] Le Corbusier, The Complete Architectural Work; 1929-1934, Vol. V, (New York: Frederick A. Praeger, 1960), 191.

apprehended by the mind. The real essence of journeying is located within the villa, while the outer facade stands as a protective shell.

The ground floor is a strip of asymmetrical structure which shows the two villas (Jeanneret and La Roche) as one structure without a clear-cut division. The gallery, attached to La Roche's dwelling above the ground floor, constitutes the overall L-shape of the structure at the first level above the ground floor. Perhaps one of the reasons why Le Corbusier decided to raise the gallery on *pilotis* was to provide a separate entrance to the villa. The plan shows a fence placed at the edge of the recessed building to separate the garden property of La Roche from that of Raaf Lotti (Le Corbusier's sister-in-law). Raising the gallery on pillars provided a semi-squared garden at the ground level for La Roche in spite of the smallness of the property.

**Figure 44**

Walking under the gallery.

Perpendicular to the main (straight) road on which the garages of the two villas were placed, the private entrance walkway was prepared only for strolling. Le Corbusier laid out a circuitous path that flows under the gallery between two pieces of greenery and three free-standing columns. The design is a preparation for a promenade that starts from outside the buildings and continues within. The promenade cannot be experienced

without actually walking through, beginning with the meandering path which accommodates the body's involvement with the natural elements; therefore the more mechanical movement was left behind on the straight path which was made for cars. For Le Corbusier, the machine is a servant, a means to an end. But the end is the man for whose service the machine was meant. At the same time, he upheld Ruskin's ideas on the importance of walking for the architectural experience. Le Corbusier kept both—the machine movement and the human walk—but separated them into two different themes:

> As Arab architecture shows, we cannot understand the development of an architectural composition unless we are walking, moving from one place to another. . . . Architecture can be seen only by a walking man. . .so much so that when it comes to the test, buildings can be classified as alive or dead according to whether the rule of movement has been applied or not."[15]

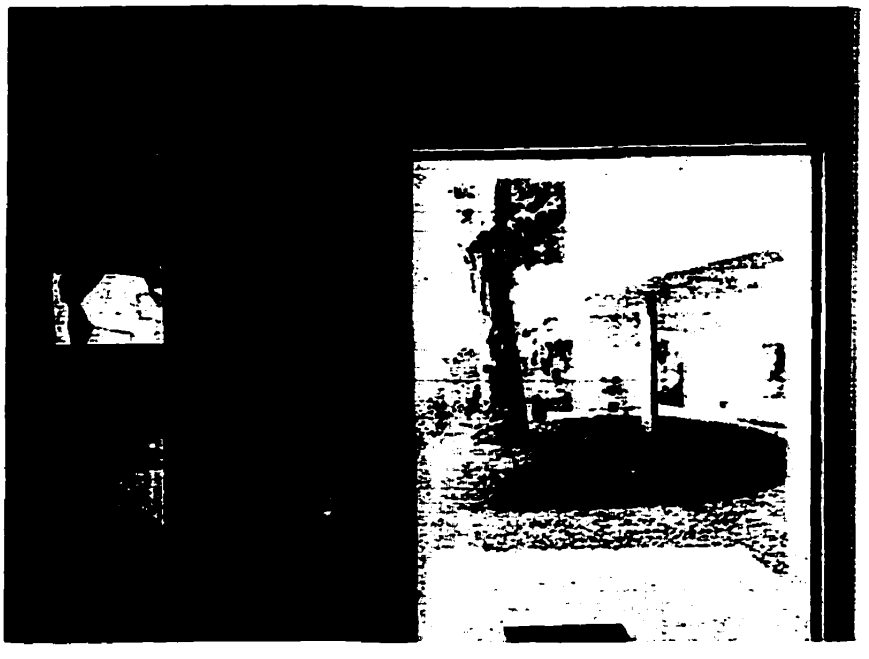

**Figure 45**

The outside door of villa La Roche. The view back to where the stroller has just crossed the outside garden.

[15] Le Corbusier, Entretien avec les etudiants des ecoles d'architectures (Le Corbusier Talks with Students) 4; quoted in Jacques Guiton, The Ideas of Le Corbusier in Architecture and Urban Planning (New York: Braziller, 1981), 38.

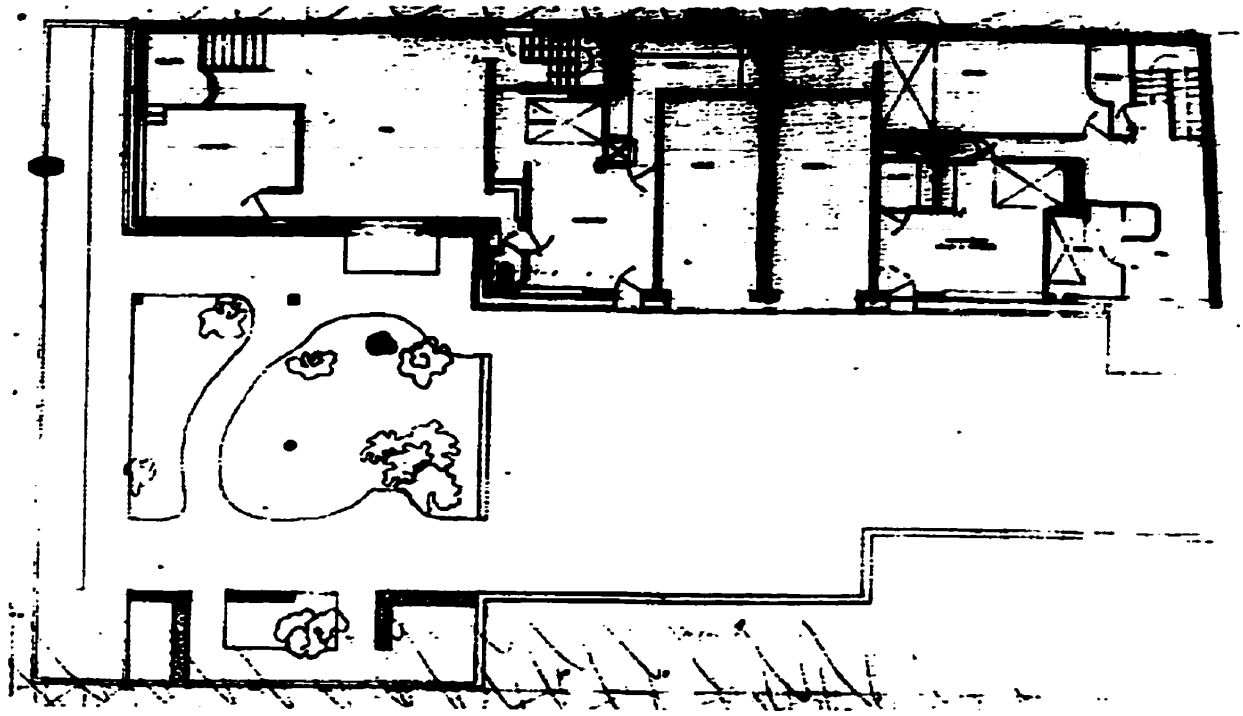

**Figure 46**

(FLC 15173) Plan of the floor level of Villa LaRoche/Perret.

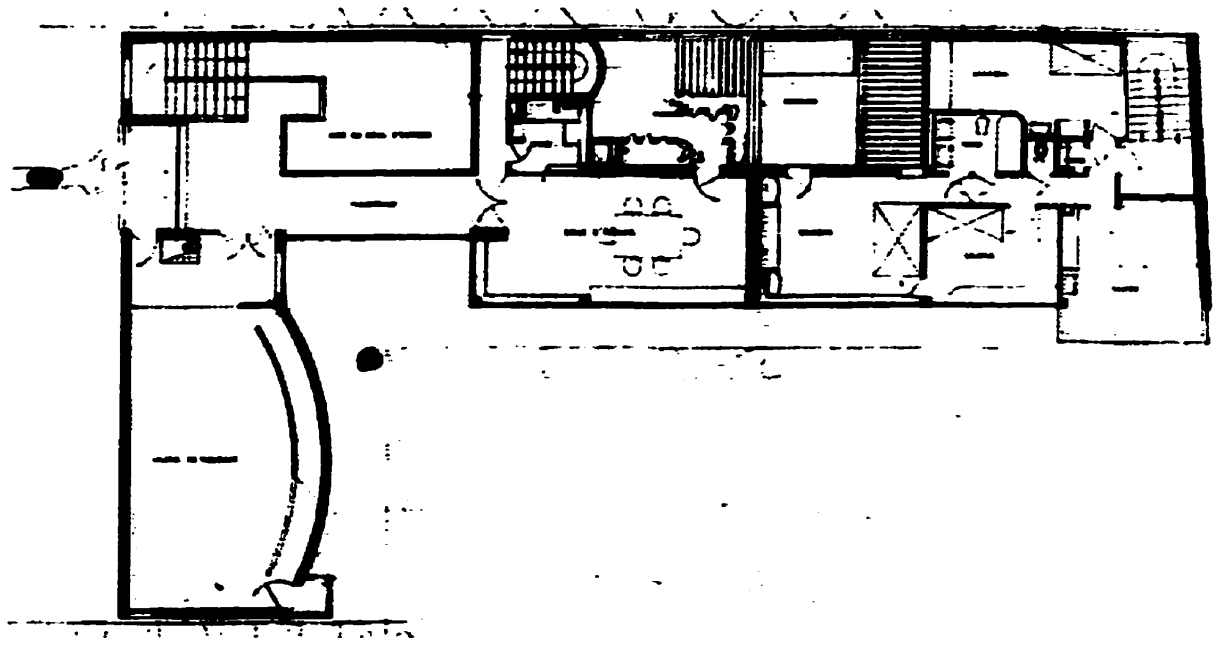

**Figure 47**

(FLC 15174) Plan of the first level of Villa la Roche/Jeanneret.

The journey through villa La Roche starts from the street, where everything is wide open, and gradually moves from the public to the private sphere. Starting from the main street and turning into the quasi-private street where the villa is located, a stroller would see the pure white facades of the building begin to appear. Crossing the threshold of the property, the walker follows a more local passageway which provides a serpentine path between greenery and pure geometrical columns. The outside space has changed although one has not yet actually stepped inside the boundaries of the building. This new outside space is defined also by the structural shade of the whitewashed fifth facade under which the stroller passes. The over-hang is a semi-outside space that introduces a psychological preparatory stage between the outside and the inside modes of being. One becomes more and more aware of the transitory nature of the space after passing through the gate of the property, getting closer to the front facade, and moving under the elevated gallery.

The next step is complementary to the continuous transitional journey that commences just after one enters through the outside door of villa La Roche. The walker experiences a new space in the triple-height squared entrance, intensely illuminated by a huge window just

**Figure 48**
**View of the entrance hall of Villa la Roche.**

above the entrance door. The pure cubical space generates conflicting emotions by exerting a central power of attraction while, at the same time, various surrounding orbits and paths exert a strong pull outwards to the four corners. The axis of movement is blocked by a three-floor-high pure opaque wall; at which point it is divided into four derivatives of varied importance. A jutting suspended cubic balcony, flying bridges, two staircases, doors and apertures are at once visible inside that collecting space, urging the body to engage space dynamically.

If the garden space before the entrance was described as "semi-exterior", the vestibule can be described as "semi-interior". The atrium-like place is painted as white as the outside facade. The huge window is unframed and has almost the same connection to the wall as the exterior facade. Several balcony-like elements structure the space, the most significant of which are the jutting terrace at the landing of the left staircase and the bridge-like corridor stretched between the two sides of the vestibule, perpendicular to the main axis of entrance just over the door. The various axes that spring from the atrium and the overlooking terraces give one the impression of being in an outer extension of the villa while the inner domain remains to be discovered. The hall's three-floor-high reality, in addition to the brightness of the space, augments that feeling of being not completely inside, still not entirely outside. During his journeys, Le Corbusier examined the vestibules and the meditating role they can play. For him, the vestibule is a midpoint between two moods—the public (exterior) and the private (interior).

In his discussion of the La Roche-Jeanneret houses, Forster argued successfully concerning the link between Villa La Roche and the Pompeiian house. He particularly stressed the existence of a central area which is capable of drawing all the spaces of the house into its own orbit.[16] Forster hypothesized that Le Corbusier would have been familiar with the illustrations of August Mau of which many were devoted to the Pompeiian house plans. A similar argument can be made for the Turkish house which was a derivative of Islamic architecture, especially during the Ottoman empire (which ruled many of the Islamic countries from the 15th century until the early 20th century). Not only mosques, which were mainly designed with a huge central area for prayer around which the rest of the functions were arranged, but even houses were usually provided with a central vestibule. It was a public space inside that most private space, the home. Its main function was to entertain guests in a rich space without allowing them to enter the private rooms. The court was usually a multiple height space that could be supervised from balconies and the latticed windows of private rooms at the higher levels.

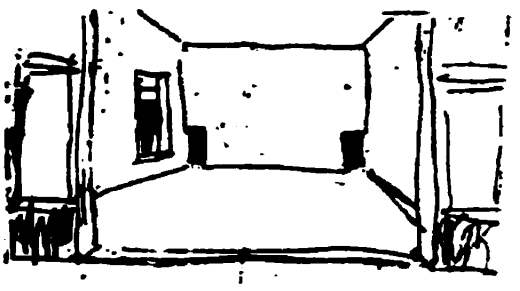

**Figure 49**

The interior of a Pompeiian house as portrayed by Jeanneret 1911.

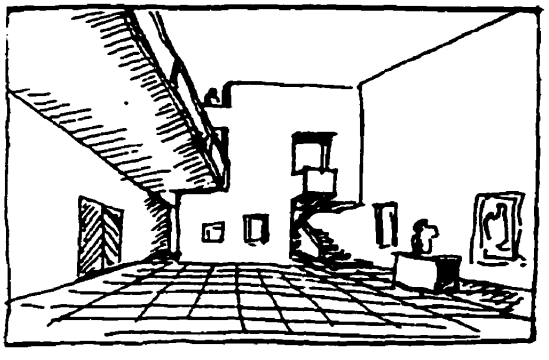

**Figure 50**

Interior of Villa La Roche as sketched by Le Corbusier 1923.

[16]Kurt W. Forster, Antiquity and Modernity in the La Roche-Jeanneret Houses of 1923, 131-153.

No doubt Le Corbusier was influenced to some extent by the Turkish houses, which he described in his diaries: "The Konak, the Turkish wooden house, is an architectural masterpiece."[17] Vogt-Goknil, in Ottoman Architecture, devoted a complete chapter to the domestic buildings in Turkey built during the Ottoman era. He describes the houses as characterized by plain facades and asymmetrical structuring of plans.[18] In his descriptions of the dwellings, one can see a number of striking parallels to Villa La Roche:

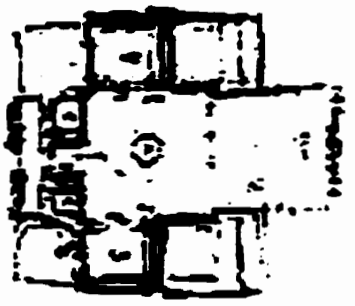

**Figure 51**

The court of Boursa Mosque.

> The simplest plan consists of a hall with a few rooms . . . often . . . grouped around the hall in an 'L' or 'U' shape. . . .The ground floor has few living-rooms and contains the cellar, store-rooms, kitchen and servant quarters [the maid's suite on the ground level of La Roche] . . . an airy half-open room leading to shading inner gardens [and a] . . . central room entirely walled with windows . . . . For women especially . . . the hall was the one place where they could make contact with nature [meditation]. . . . Another very typical feature of the Turkish house is its alcoves . . . they project over the almost windowless street-level walls [the projected area of La Roche]."[19]

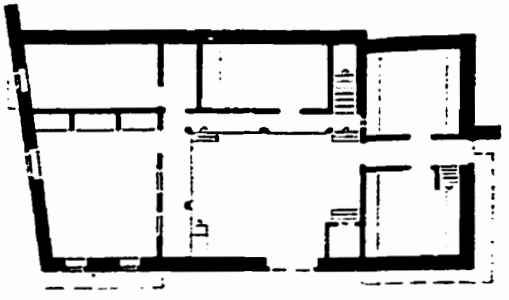

**Figure 52**

Plan for a Turkish house showing a marked resemblance between the role of its central hall and that of the main hall in Villa La Roche (Turkish house, 142).

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[17] Le Corbusier, Journey To The East, 167.

[18] Vogt-Goknil, trans. Jurgen Joedicke, Living Architecture: Ottoman Empire, (Switzerland: Grosset & Dunlap,1966),139.

[19] Ibid., 140-142.

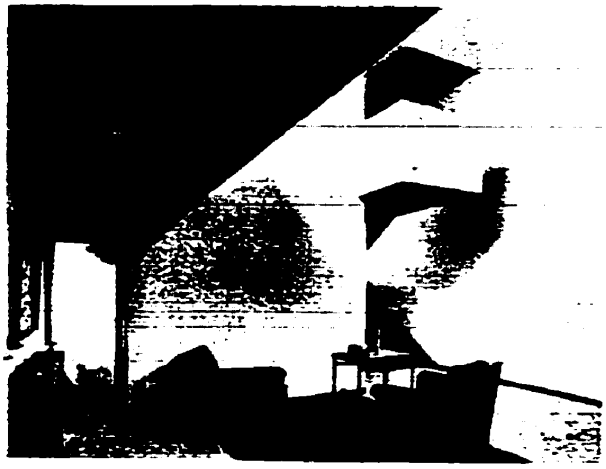
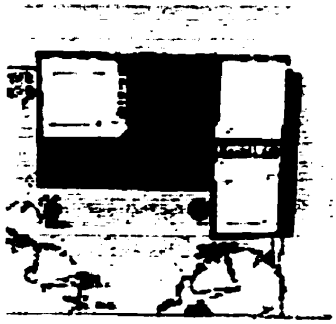


**Figure 53**

A view inside the central hall of La Roche at the left hand side just after entering through the main door. A door is located beneath the bridge and a staircase ending with a jutting bridge is at the rear.

To sum up, this type of dwelling had plain facades which, like the protective membrane of a body, veiled the liveliness of the inside structure and the efficiency of its arrangement while controlling the relationship with the outside world.



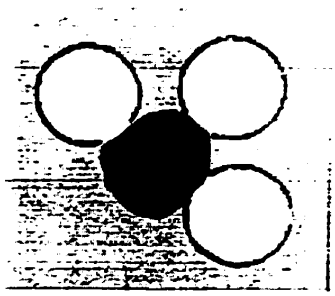


**Figure 54**

A diagram for a typical Turkish vernacular house. The main hall has central importance in the interior structure of the building. (Turkish House, 61)

The central hall of villa La Roche can also be compared to the organic heart, central in its position within the body, yet pumping the fluid of life to all the limbs in a never-ending system of circulation. Forster describes the hall of La Roche as a "central area spaced to the full dimensions of the entire dwelling and capable of drawing all the spaces into its orbits."[20] In fact, the space does generate a sense of contraction and expansion, absorbing and emitting in an unending motion. The whole idea rotates

**Figure 55**

*My Work* pp.154.

around the notion of movement. As mentioned above, the four angular points of attraction draw the attention, especially to the left towards the exposed jutting balcony. The two opposite staircases rise to the gallery space and the dwelling area respectively. The staircase leading to the gallery (the public part of the dwelling) is more exposed and inviting, the other being partly veiled by a partition (see the plans, Figures 46, 47 and 68). The jutting balcony draws the stroller powerfully to the staircase and up to the secluded spot where one may pause for breath in the space of motion. From that standpoint inside the enclosed balcony, the axis of vision is divided between a flying bridge-like corridor (a spur for motion and inquisitive thoughts) towards the right; and a plain, white, static wall located at the left. The immediate position of the meditative balcony, which is prominently placed for pausing and looking, is contradictory in that it is located on the same path that continues through the rest of the villa. Following along this path towards the south, the stroller sees a closed glass terrace window receiving the greenery of a graceful acacia tree to the right, and the flying bridge opening to the left. The two sights propose two contrasting forces: one demands stillness and mental vision while the other invites more bodily motion and visual exploration. A third pole and the main pole of attraction, the art gallery, lies on the main axis.

**Figure 56**

The pure white jutting balcony of villa La Roche.

The gallery space appears to have been designed to insure the continuity of the journey. One of the gallery's powers is to gather

[20] Kurt W. Forster, Antiquity and Modernity in the La Roche-Jeanneret Houses of 1923, 146

together two opposing qualities. At the threshold of the gallery space, the whitewashed wall displays a selection of paintings carefully chosen by Le Corbusier for the collector, Raoul La Roche. A small partition helps to focus the vision by hiding the flying ramp and directing the attention diagonally to the location of a vertically rectangular window (source of light). The diagonal movement was meant to direct the gaze to the paintings displayed on the L-shaped wall. The short journey between the two perpendicular plain walls covered with purist paintings ends at a cube shaped balcony. Like the first one inside the entrance hall, it juts out from its immediate location to allow a supervisory view from the second floor. As well, from its suspended, secure, and box-like extension, the balcony provides a view of the entire facade. Tension arises again at that spot between the suspended ground of meditation and the physical stimulation evoked by the curved, rising, bridge-like ramp. At the same time as its longitudinal proportions arouse energy, the ramp's curvature itself seems like a response to the vital energy exerted on walking along its elongated axis.

In one phase of the design, Le Corbusier proposed that the cube shaped balcony occupy the middle of the curved wall, while the long ramp be replaced by a straightforward staircase. The plan required that the balcony project exactly from the middle of the

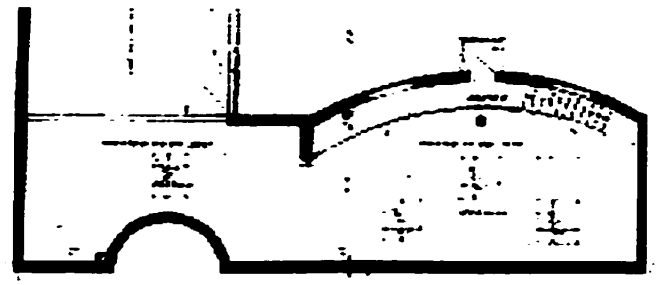


**Figure 57**

**Part of an early proposal for determining the placement of the art gallery (FLC 15206). The balcony juts from the middle of the curved wall and, instead of the existing ramp, a stairway is proposed.**

'swelling' shaped by the body movement, as if a ground swell of thought or meditation was arising at the midst, or precisely at the climax, of the bodily action. Figures 57 and 58. (FLC 15206 and 15207) illustrate that combination which, it seems, failed for technical reasons. The eleven rises of the stairway did not provide enough height to give a complete floor rise before reaching the landing at the balcony. The rest of the required steps could not be completed successfully because this would have destroyed the symmetry Le Corbusier wanted to establish by locating a typical square window at each side of the balcony. The balcony and the two proposed windows were located exactly at the level of the landing after the eleven steps of the proposed stairway. Secondly, it would cut down the corridor into sections of staircase and corridor, neither having a strong expression. As well, the proposal did not work because the illumination would not have been efficient for the gallery as a whole as the window would be very close to the landing of the corridor. The replacement of the staircase with a complete ramp provided a solution by raising and maintaining the visionary power of the corridor (in comparison to the staircase). Also, the final modification shows the development of the notion of symmetry in Le corbusier's mind. Instead of making a classical symmetry outside which might not be recognized from inside the building, he preferred to support the local symmetrical vision. He intends that local symmetry to appear regularly during the actual journey inside the building.

The cubical, jutting box-like balconies (or viewing boxes) have an extremely strong figurative role in the structure of the villa. Their suspension over space gives them a conrolling position that encourages mental vision and meditation and allows a wide outside gaze. Villa La Roche is the first project to emphasize this type of balcony.

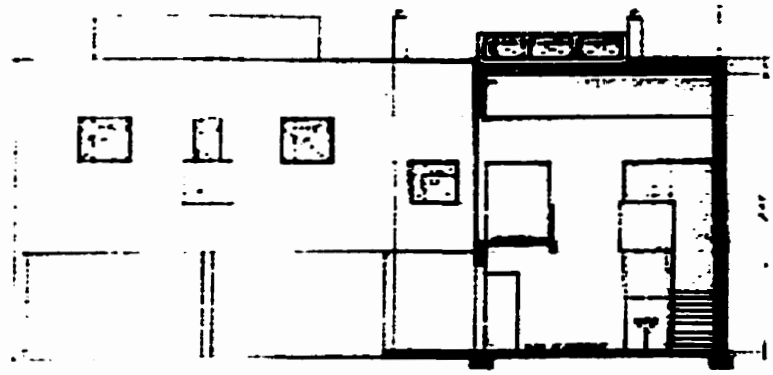


**Figure 58**

FLC 15207 showing the balcony and the two symmetrical windows at either side.

These cubic boxes were developed as a result of Le Corbusier's "Apres-Le-Cubisme" experience with Ozenfant, which started after his move to Paris. Le Corbusier and Ozenfant argued that the idea of purism should be the basic characteristic of modern thought. They claimed that by representing elements stripped of any unnecessary additions, a better universal understanding could be gained, as the pure forms would "stimulate the intellect to react."*21*

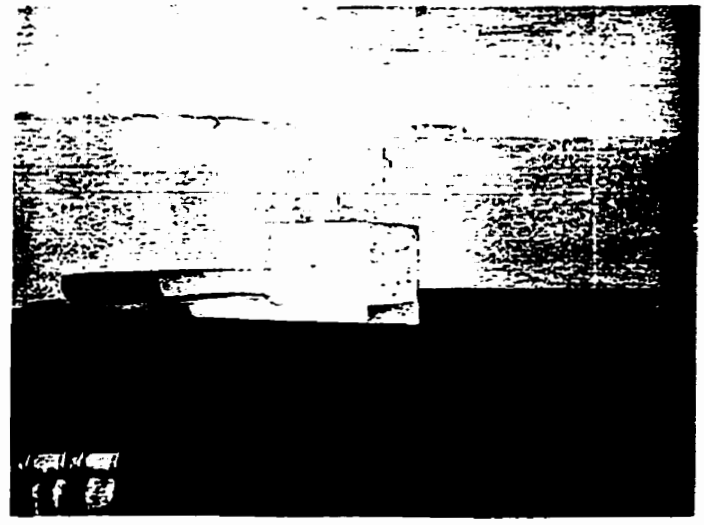


**Figure 59**

Jeanneret, La Cheminée, 1918 (first displayed in Jeanneret's and Ozenfant's gallery of purism in 1920).

[21] Ozenfant and Le Corbusier, Apres-Le-Cubisme, 18 ; quoted in Jacques Guiton, The Ideas of Le Corbusier, 38.

The cube was one of these pure forms that the mind can grasp because it is a geometrical expression, which is the language of all minds. Le Corbusier's first portrayal of his cubist ideas was his 1918 painting La Cheminée which many critics argued was a purist reflection of his visit to Greece. In the center of the drawing was a significant pure white cube, the most striking element of the painting, placed on a marble shelf with shaded books beside and above it. The pure white color of the cube gave it the sense of standing or jutting out from the surrounding colored environment. The purity of the white block was asserted not only by its color, but by its pure form and central position in the drawing. Stanislaus von Moos, in Le Corbusier; Elements of a Synthesis,[22] claimed that La Cheminee was a direct psychological reflection of the pure white marble columns and surfaces that Le Corbusier had seen in the Parthenon of Athens and in the mosques of Turkey.

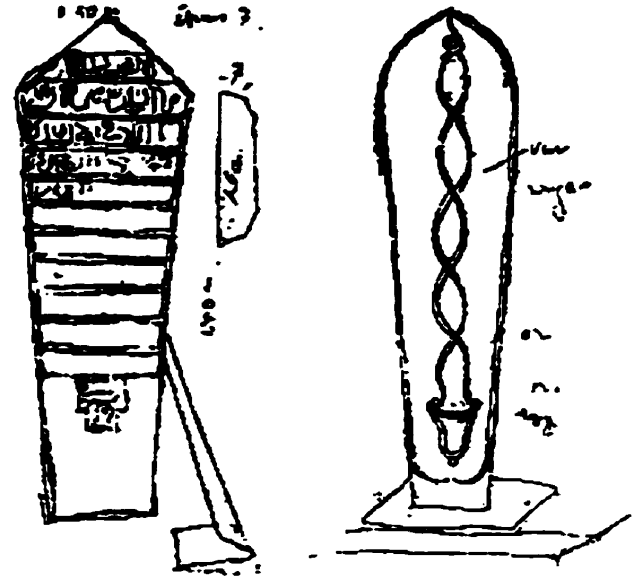


**Figure 60**

Two marble stands (used for cemeteries) sketched by Jeanneret in Turkey during the summer of 1911.

The two open jutting balconies of Villa La Roche and a third closed block which projected from the Jeanneret/Raaf villa share an interesting structural relationship. This is apparent, as Forster observed, by extending an imaginary line from the surface of the

Jeanneret/Raaf block to a point in the center of the distance between the two similar La Roche balconies. Le Corbusier was conscious of the proportions and the symbolic importance of the balconies, so he must have been aware of this relationship. The two symmetrical balconies gaze out from different locations and with different views: while the first balcony is suspended over the entrance-hall space, and so gazes internally, the other one gazes externally at the outer facade and the natural surroundings. It is apparent that both balconies are placed on exactly the same plane. Their position and relationship to the surroundings might imply the mental struggle between the inward and the outward. They can also symbolically represent Le Corbusier's own journey: at the beginning, he was looking inwards at a regional identity; later he turned his gaze outwards to a universal synthesis.

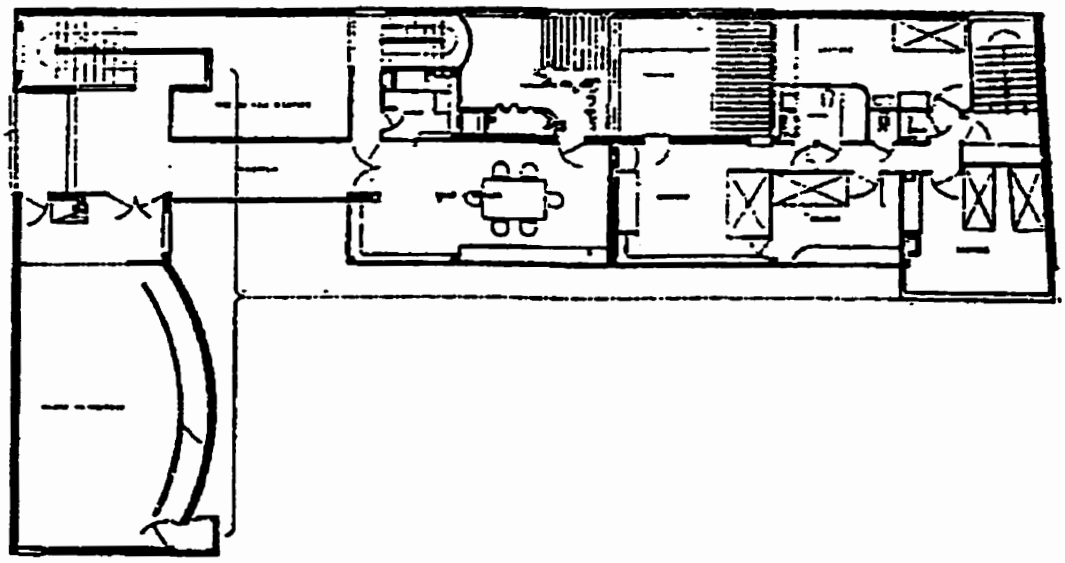


**Figure 61**

Forster's analysis of the relationship between the two jutting balconies of Villa La Roche and the jutting closed box of villa Jeanneret/Raaf.

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[22] Stanislaus von Moos, Le Corbusier: Elements of a Synthesis (Cambridge (Mass.): MIT Press, 1979),41.

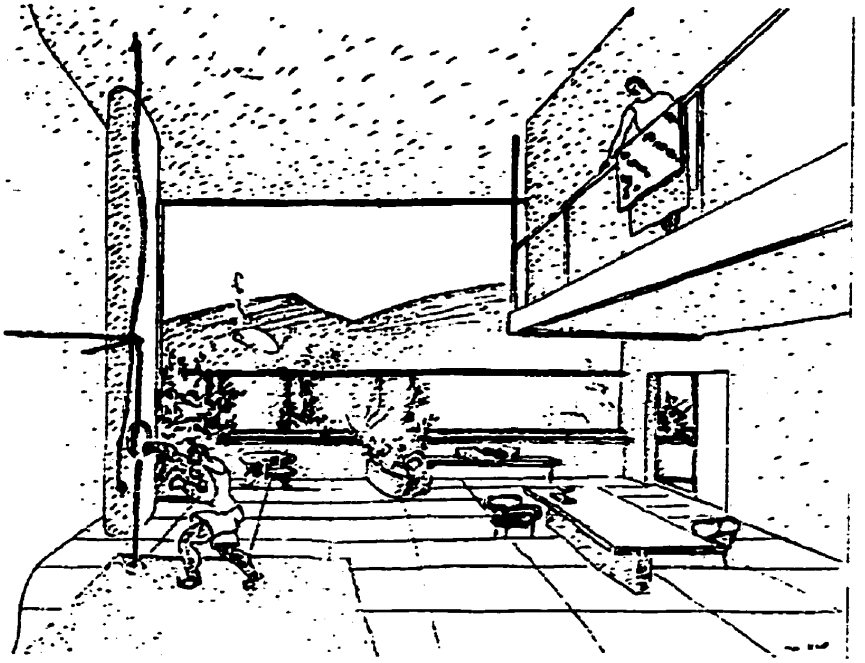
In both cases, the cubical jutting balconies provide a ground for vision. Their scale and enclosure might indicate the privacy of the mental experiment, while the purity of shape and color might refer to the sensitivity of mind. These jutting viewing boxes recall the lattice windows of Islamic architecture which provided enclosed private spaces for women to see from inside to outside. In many cases these lattice windows protruded over the main atrium of the house. The separation between men and women reflected their differing roles: the former's one of physical action; the latter's a more passive engagement. The idea stimulated Le Corbusier's imagination to develop it according to a new context. The beautiful sketch of the interior of the *Warnner Geneve,* where he separates the bodily movement from the silent mental action, are revealing. The idea of the two powers (the physical, represented by man, and the quiet power of the mind represented by woman) found fertile soil in the conception of the house where both powers are unified. In most of his projects, Le Corbusier represented what is related to mind (mediation, gazing, dreams, reading, etc.) by straight lines, cubes, and pure geometrical expressions, while most of the body function spaces were represented by elastic walls (see the curved ramp of the gallery in Villa La Roche).

**Figure 62**

A traditional example of the jutting "Mashrabeya" seen in many Islamic houses.

**Figure 63:**

Sketch by Le Corbusier for one of the cells of his collective *Warnner Geneve (1926)*. A male figure at the lower left exerts a physical effort as if responding to his own vitality, while a feminine figure pauses meditatively at the upper right, half hidden by a piece of textile. The terrace is presented in pure geometrical forms (the universal language of all minds).



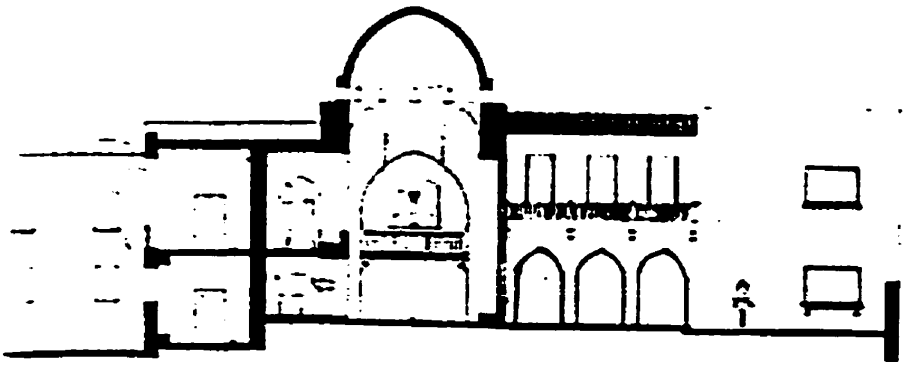
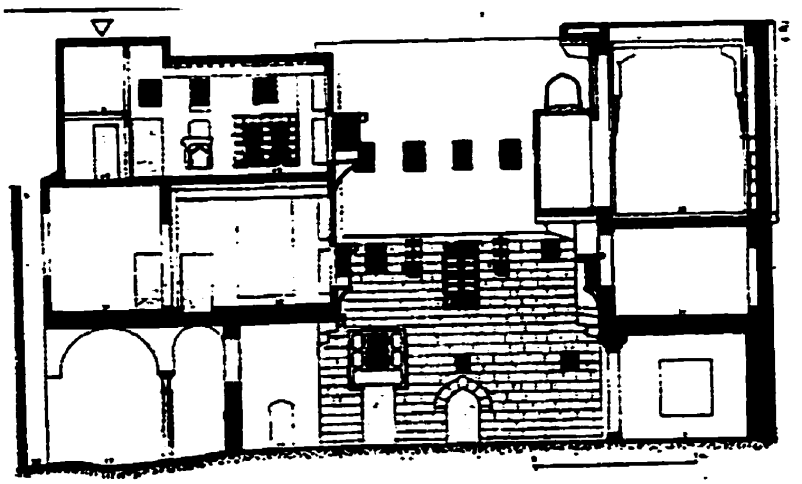


**Figure 64**

A 20th century example of Islamic architecture revival. A 1940s house by Hassan Fathi with a typical Islamic interior court.

**Figure 65**

A typical Islamic house (old Cairo, ca. 15th century) with jutting "Mashrabeyas" over a private courtyard. (Elshabasheery House).



Balconies became part of Le Corbusier's vocabulary in his designs of the 1920s They can be seen in most of the buildings of that period; in some of them, a human figure is sketched pausing meditatively. In the Villa La Roche, the balconies occupied special locations (for example near a certain physical experiment, as was shown in the villa description). Even in his later projects, Le Corbusier did not abandon balconies, but presented them differently. In his late architecture, around mid-century, he introduced his *Unites d'habitation* where the villas were grouped collectively as small stacked cells. The interior size and the exterior facades were extremely economical and simplified without losing their essential elements. The facade, for example, became one extended aperture occupied by a collective terrace, while each interior was provided with another terrace in the double-height space.

**Figure 66**

Exterior view of the *Immeuble villas* as proposed by Le Corbusier in 1925. Note the personal viewing balconies which protrude between the private suspended terraces of each "cell house".

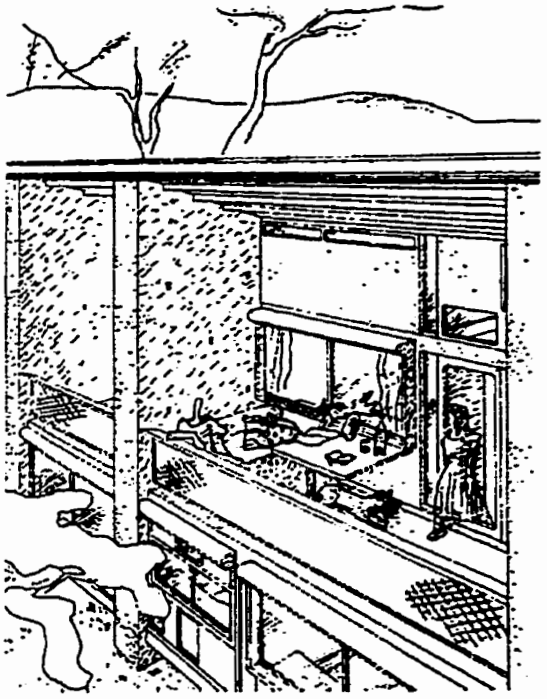


**Figure 67**

Proposal for a mass-produced-house, project *Mesopotamians* in France.

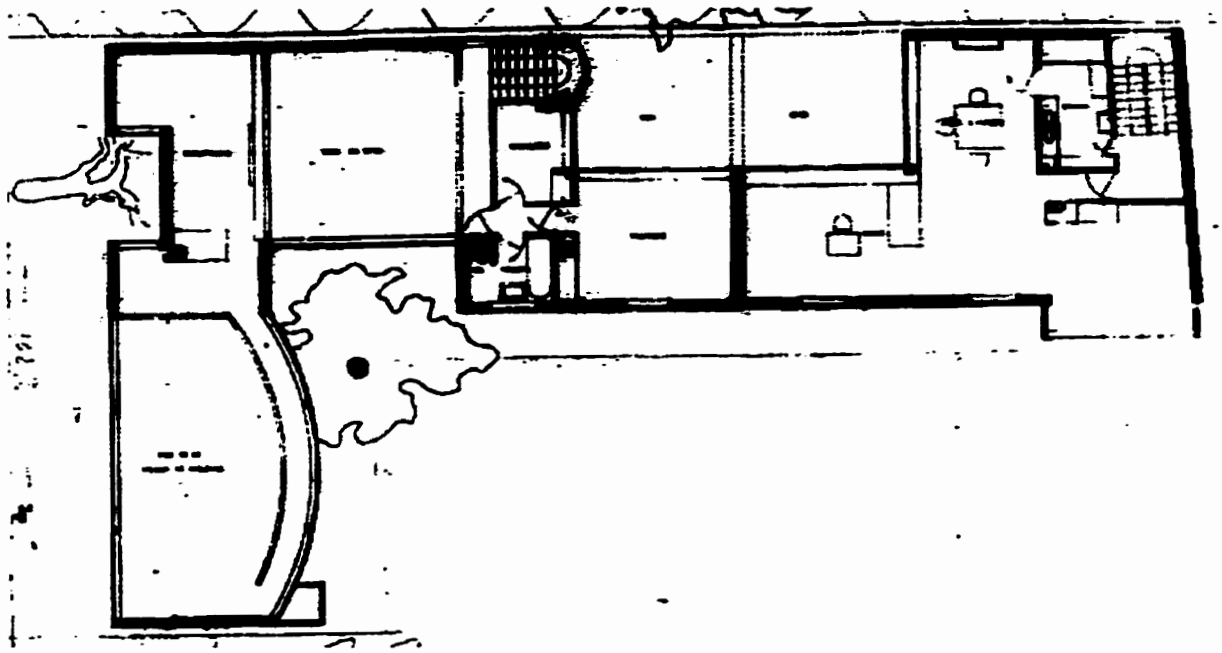


**Figure 68**

(FLC 15175).The plan of the second floor of villa La Roche.

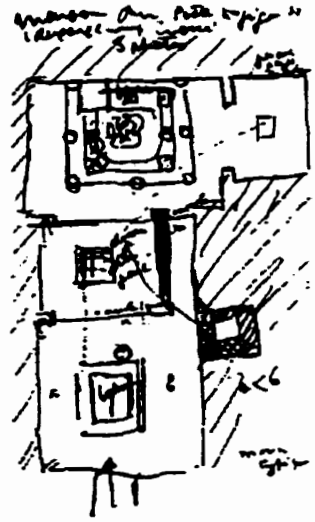


**Figure 69**

Plan of a Pompeiian house (the house of the tragic poet) as sketched by Jeanneret on his journey in 1911.

Let the visitor now continue the journey inside Villa La Roche. After the jutting balcony of the gallery, a laborious curved ramp leads up to the library. The final stop in that direction was meant to be a reflective moment allowing a recollection of visions. The terminal was cleverly chosen to be a library provided with various "views". Looking back, the viewer would have a controlling gaze over the gallery that had just been physically crossed. To the right another terrace overlooks the entrance hall, and thus governs the initial point of movement. The laborious movement and collecting of visions is summed up between these two points. It could be called a space for synthesizing emotions between the beginning and the ending positions. Not only the architectural experience but also its

relation to nature is symbolized by the acacia tree whose branches and leaves are clearly visible between the two opposite windows in the library. The level of the library allows one to look outward at nature through the ribbon window stretched along the curved wall over the ramp.

**Figure 70**

View from inside the gallery showing the plain wall and the curved ramp leading to the library.

All the previous experiences are brought together in this terminal point designed for sitting, reading, and thinking. Here takes place the process of recollection and rearrangement of the journey's memories. All the previous visions and experiments can be connected , bringing all oppositions into a unified mental state.

**Figure 71**

Another view of the gallery from above the ramp. Notice the placement of the paintings (means of meditation) on the plain wall, on the curved handrail, and at the very beginning of the curved wall just before entering the ramp beside the jutting balcony where no hard physical power is yet needed and the power of meditation still dominates. (arranged by Le Corbusier).

The library overlooks the origin of the journey (the vestibule) and also the last place visited (the gallery). All impressions and feelings are brought intact into that place of synthesis with its remote but supervisory location. All the elements can be gathered here for re-invention or re-creation:

**Figure 72**

A view from the library over the gallery.

> The uninterrupted transformations of materials as well as energies brings everything into relationship with everything else and make one cosmos out of all the individual elements."[23]

The place is also adorned by nature. As one looks out, nature looks in. The walls of the library were, in fact, recessed to accommodate a large acacia tree leaning towards the house. The space literally embraces nature in a manner that shows both respect and supremacy (see the plan of the second floor). Books are another means for the process of synthesis. They were a factor in Le Corbusier's own development, and guided him to a new way of observing the surroundings. Everything here was put at the disposal of the human subject to enable one to experience what Hannah Arendt called "productive imagination":

> "In 'productive' imagination, elements from the visible world are rearranged, and this is possible because the elements, now so freely handled, have already gone through the de-sensing process of thinking."[24]

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[23] Simmel Georg, "Bridge and Door," Theory, Culture and Society 11 (1994): 5.
[24] Hannah Arendt, The Life of the Mind, (New York Harcourt Brace Jovanovich, 1971) , 86.

The return journey provides a different angle of perception. Passing through the same points but in the opposite direction inspires different visions. Descending the ramp with the flow of gravity is easier than ascending it. What may balance the equation is that the energy consumed in ascending would be compensated by the power of imagination and exploration. As one leaves the gallery, the flying bridge that was previously seen to the left over the entrance hall, will be seen at this moment located to the right exactly facing a terrace shaded by the acacia tree. It can be considered the last opposition before taking the bridge that connects the dining room to the gallery area.

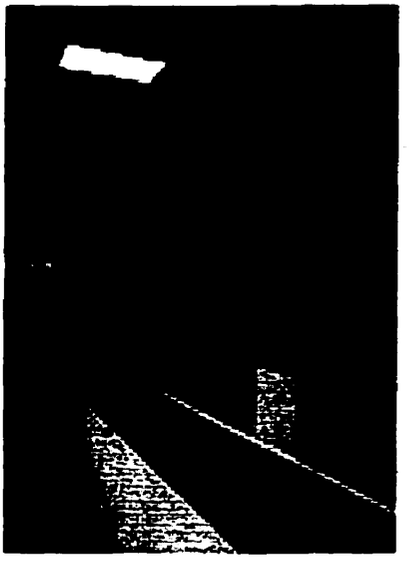

**Figure 73**

The bridge-like corridor flying in the entrance hall space to connect the gallery area, to the dwelling rooms.

The bridge is a complex element. Its stretched rectangular proportions invite one to advance, while the bridge itself is a terrace of meditation. Terrace (pause and mental reflection) and bridge (kinetic advancement) are contradictory elements. It is the same conflict experienced in all thinking creatures, as any human being, by the simplest definition, is a unification of mental and physical existence. All

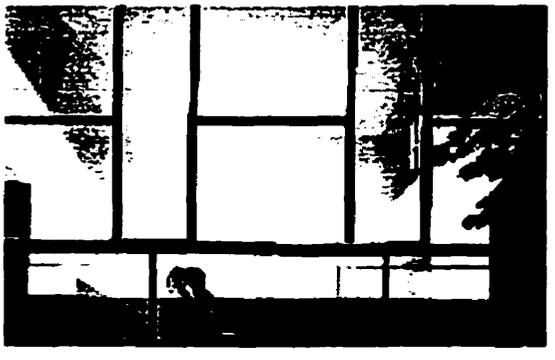

**Figure 74**

Corbusian comfortable chair as placed by him on the bridge path.

of his journeys, therefore must embody that opposition. The immaterial and the material condition together establish the completeness of the human being, while each of the two conditions is dependent on the other in a complex relationship. While the physical experiment is the very basis for the formation of emotions and so spurs imagination, the mind has itself physical existence as a body part. The bridge displays that duality of being, and perhaps for that reason it became one of the elements that fascinated Le Corbusier throughout his career. The bridge of Villa La Roche connects two essential elements of the villa: the open gallery and the enclosed private dwelling. Each end of the bridge can be understood as a door opened on an opposing environment. The bridge flies between the two while suspended over the entrance hall, establishing a ground for meditation. Le Corbusier portrayed that opposition by photographing that bridge-like corridor, which generates motion, with a comfortable long chair in the middle (rest), emphasizing the terrace-like quality of that element. That "terrace" has two opposite views: one is directed inward and the other outward through the large glass window towards another large acacia tree. The opposition of viewing while being viewed (self-monitoring) was an element to which Le Corbusier paid much attention; he favoured especially the inside/outside views as can be seen in many of his photographs of his own projects (Villa Savoye, for example).

**Figure 75**

Sketch (FLC 15113) showing an early development of the idea of self monitoring through the large window. The viewer sees a section of the same building as well as an arranged 'seating' in the enclosed garden.

The idea of self-monitoring, looking out to see a reflection or trace of oneself, entered many of Le Corbusier's villa designs. In figures 75 and 76 the idea of self monitoring is shown as a view from a window looking out on a section of the same building. Self-monitoring is an idea closely related to the concept of journey. The outward vision clarifies the sense of self by enlarging the view of oneself reflected in the exterior world. Many of Le Corbusier's sketches render the idea of self-monitoring in a form he called "still-life". Figure 77 of Villa Mme Meyer, for example, supports both outward and inward viewing. From the promenade space, an interior hall can be seen with the "still-life" elements—table, chairs and accessories—arranged to suggest a brief absence of the subject. Upstairs from the inner "balcony", the viewer can see him/herself in the process of daily life, as it were. The idea of unifying the interior and the exterior elements echoes the surrealists' aim who "have attempted to present interior reality and exterior reality as two elements in process of unification, of finally becoming one. . ."[25]

**Figure 76**

View from the bridge through the huge glass window .

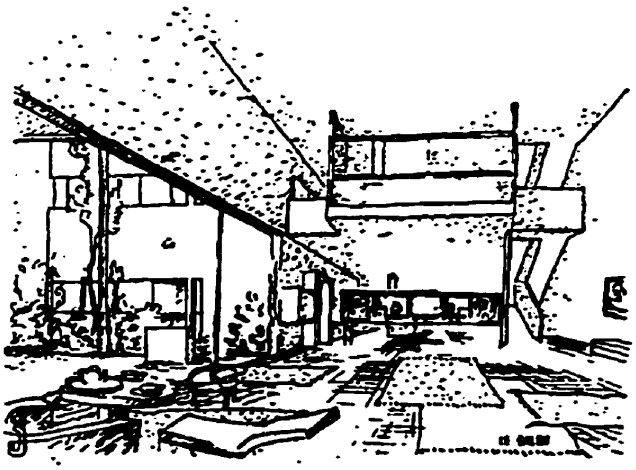

**Figure 77**

A "still-life" perspective of a living-room and *galerie* (boudoir) (Villa Mme. Meyer, Paris 1925).

[25] Andre Breton, What is Surrealism? Selected Writings, ed.. Franklin Rosemont, (New York: Monad Press for the Anchor Foundation,--- ; repr. 1978), 116.

At the other side of the bridge, one reaches a fairly large dining room having a pure rectangular shape elongated towards the front of the villa. The left side is opened wide by a series of ribbon windows, while the left wall is kept pure except for a door opening to a garden terrace near the end of the room. A square kitchen opens directly onto the dining area. Outside the dining room, a corridor ends with a staircase connecting the dwelling area and the bedrooms vertically. (Notice the emergence of a terrace exactly facing the vertical motion.) The second floor is as simple as the first, but the dominating space is the master bedroom with private bathroom and dressing room. The ribbon window here, unlike that of the dining room just downstairs, has shifted to the opposite wall to open a view of a small garden terrace, while a squared window on the front wall looks out to the street. Outside the room, the corridor is rendered as a straight terrace over the entrance hall, bridging up to the crown of the promenade, the suspended roof garden.

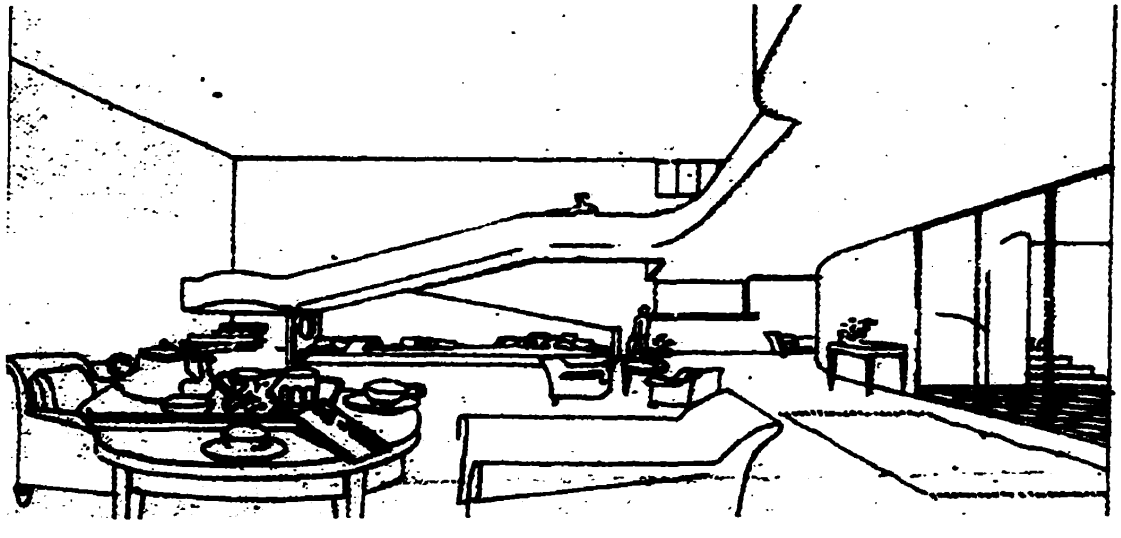

**Figure 78**

(FLC 15135). An early design of villa La Roche (before the site change). Note the "suspended moment" of Le Corbusier's still-life sketch. A figure is about to enter the extensive ramp while another (a different mood of the same person?) gazes meditatively at the still-life elements arranged in the hall area.

Like the promenade of Villa La Roche, the roof garden was primary and simple. Le Corbusier terminated the journey inside the house by a suspended terrace on the top of the villa's roof. The continuous contrast between motion and meditation that accompanied the traveler throughout the *promenade architecturale* was finalized in this ultimate place of meditation. Located on that suspended terrace, one experiences a rift between oneself and the rest of the world, a feeling that would not have

**Figure 79**

**The simple roof-garden of villa La Roche. A suspended terrace is provided on the top of the building locating man in a new relationship with the surrounding that enriches the separation/connection relationship.**

**Figure 80**

**Concrete pergola in the roof garden of villa La Roche.**

been attained without the previous journey towards internalization. On the terrace, where time is spatialized and conventional elements lose their customary meanings, one's realities come together into a new synthesis of private surreal experience.

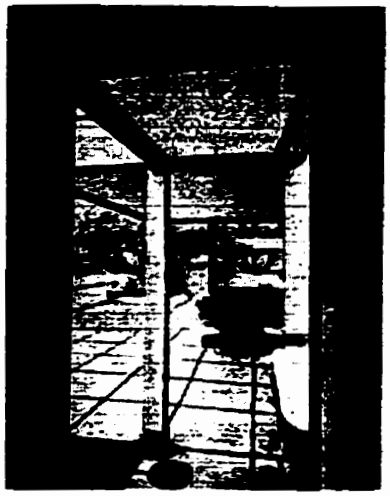

**Figure 81**

The roof garden.

# Chapter Three: Origins and Connections

## 3.1. Setting up a bridge

> *The people who first built a path between two places performed one of the greatest human achievements.*
>
> Georg Simmel, "Bridge and Door"

In order to explore the evolution of Le Corbusier's architectural vision, Chapter One briefly described his origin and the four-year journey that furnished so many of the striking images and insights that were to influence his work. Chapter Two then described the Villa La Roche which embodies the early fruition of Le Corbusier's new vision. But the link between his journey and the development of his ideas, particularly that of the promenade, has not yet been fully explored. The purpose of this fourth chapter is to establish a more consequential link between Le Corbusier's actual journey and its role in shaping the architectural promenade of Villa La Roche.

The idea of bridging articulates many distinctly human characteristics such as the subject/object relationship, the urge for change, and the memory required for the production of ideas. The first bridge to be established by

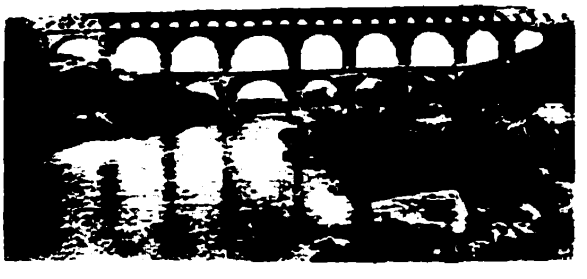

**Figure 82**
**A Roman aqueduct** (The City of Tomorrow, 57).

humans represented the first successful attempt to surmount the limitation of one's location in the world. Crossing over space enabled the human being to extend the dimensions of experience: "Frontiers fall and the whole surface of the world is known to us; only man remains intact with his clear needs and enlarged sense of poetry."[1] Simmel asserted that the establishment of such crossings reached its zenith in the construction of bridges. He saw this domain of bridging as belonging only to humans: "Only humanity, in contrast to nature, has the right to connect and separate. . ."[2]

The subjectivity of the human mind is another motive for building bridges. The mind has the ability to render the whole universe as an object that falls under the mind's subjectivity. Rendering the surrounding elements as objects is the first step in separating them and then rearranging them again. One of the most striking expressions of the power of human consciousness is to be able to submit the whole world to human—individual, cultural, or universal—patterns of thinking. This is the same process that led to the emergence of the promenade.

**Figure 83**

Through structured line of iron and concrete, a modern bridge crosses over all the natural barriers. (Towards a New Architecture, 9)

[1] Le Corbusier, Decorative Art, 36-37.
[2] Simmel Georg, "Bridge and Door," Theory, Culture and Society, 11 (1994):5.

**Figure 85**

One of the picturesque bridges that fascinated the young Jeanneret during his wanderings.

Unlike any ordinary type of traveling, the promenade emphasizes the subjective power of separating and connecting. Therefore, promenading is maintained by strolling in such a way that the body movement defines the body's relationship to space; or, more precisely, it defines the physical existence of elements in space in relation to the mind. The role of the mind is to connect all the separate elements produced by the movement of the body, and to summon from the individual's body of experiences the necessary synthesis of the whole in a complexity of relationships. The library over the gallery of Villa La Roche can be seen as an example of this synthesizing process as it terminates the journey, provides a rest for the body, and allows the mind to work recalling visions and exploring texts. The library is a place for the mind to connect the separate actualities experienced by body's movements. Le Corbusier once revealed his feelings about the idea of bridging and its symbolic representation for him:

**Figure 84**

Scene in Turnovo sketched by Jeanneret during his journey to the East.

> "A line has been etched; I see it and I remember. The trigger action is precise: in my heart a particular compartment responds to the emotion, . . immediately I throw out bridges: one leads to the corresponding period..; another to the realm of sun and cloud . . . . At the meeting point of all these bridges there is a man . . . everything is classified in terms of its relationship to man."[3]

One of the benefits of the bridge is that it brings the two opposing poles together on one path. The mental vision and the bodily action work together with high degree of efficiency. When a person proceeds along a path towards a definite goal, a panoramic vision unfolds and gives rise to a consequential development. The bridge soars smoothly over separations: each step is an analytic vision which overcomes the powers of separation. Simmel mentions how the bridge "overcomes the separation of its anchor points that make them visible and measurable."[4] The visibility and measurability of the bridge's connections fit the mind's need for everything to fall into a logical continuity. By providing a continuous human ground over their "region" of separation, the extended bridge connects two isolated elements which would otherwise lack continuity. It is this continuity, like that established between the outside street and the inside of Villa la

**Figure 86**

**A picturesque bridge links two banks of a river. The bridge overlooks the view while it is itself central to the view by connecting its components. Sketched by Jeanneret in Paris (1909-1910).**

[3] Le Corbusier, Decorative Art, 32-33.

Roche, that raises the notion of promenading. The continuity was experienced in Villa La Roche by actually strolling through; which in turn led to a step by step change of vision and process of connection. The connection between the various views and environments constitutes the essence of promenading in Villa La Roche .

**Figure 87**

**The bridge-like walkway around the perimeter of Ema controlled the enclosed property while permitting an outside view.**

Jeanneret's first exposure to the idea of promenade .took place on his very first journey to northern Italy. Brooks asserts that in the monastery of Ema, Jeanneret was attracted by a "bridge-like walkway that connected the house to the cloister's outer wall. . . ." Indeed, Brooks claims that this bridge was "the origin of Le Corbusier's 'architectural promenade.'"[5] For Le Corbusier, the experience of strolling on that walkway stimulated the emergence of the idea of promenade. This idea connected with several other visions during his journeys and eventually led to the creation of the first promenade in Villa La Roche.

As described in Chapter Two, the Villa La Roche is a complex journey of motion and rest, action and reaction. Paths and connections continue throughout the villa, creating changeable scenes that are further enriched by more motion.

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[4] Georg Simmel, "Bridge and Door", 7.

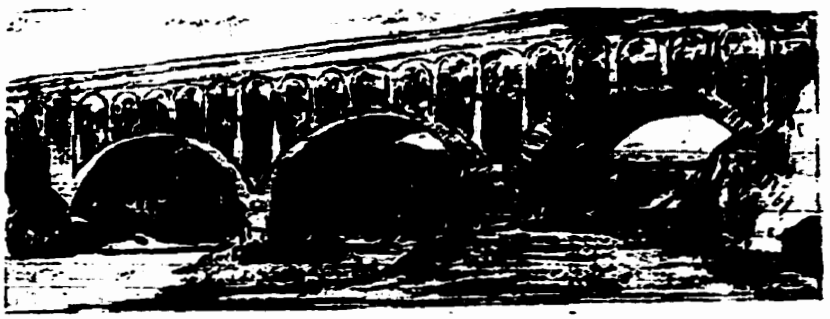

**Figure 88**

A bridge sketched and designed architecturally by Jeanneret in 1915 (but never executed) after his four-year journey. Du Bois and Schneider solved it structurally.

According to Webster's International Dictionary, the noun 'promenade' means "leisurely walk or ride, especially in a public place, for pleasure, display, or exercise"; also it may mean a "passage, gallery, or extended balcony on a building."[6] From this definition one can understand the relationship between the meaning of promenade and that of 'bridge': "anything providing connection between different things." Exactly as the promenade is based on continuous movement within a highly integrated environment, the bridge establishes the idea of connection and "relatedness":

> The bridge becomes an aesthetic value in so far as it accomplishes the connection between what is separated not only in reality and in order to fulfill practical goals, but in making it directly visible . . . . Through it the fortuitousness of that which is given by nature is elevated to a unity, which is indeed of a completely intellectual nature.[7]

The important point here is the idea of connecting separate spheres, a conception that cannot occur without drawing a boundary line to separate the different entities before connecting them in one's own mind and vision. Thus one can think of the bridge and the promenade as similar: both provide humans a journey of experience based on connections. They enable a crossing through different environments created by the

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[5] H. Allen Brooks, Le Corbusier's Formative Years, (Chicago: The University of Chicago Press, 1997) , 105-106.

[6] Webster's Third New International Dictionary, Merriam-Webster, 1986

[7] Georg Simmel, "Bridge and Door", 6-7.

presence of significant elements. The abstraction of the continuous crossing of time and space is achieved to a high degree through both of them.

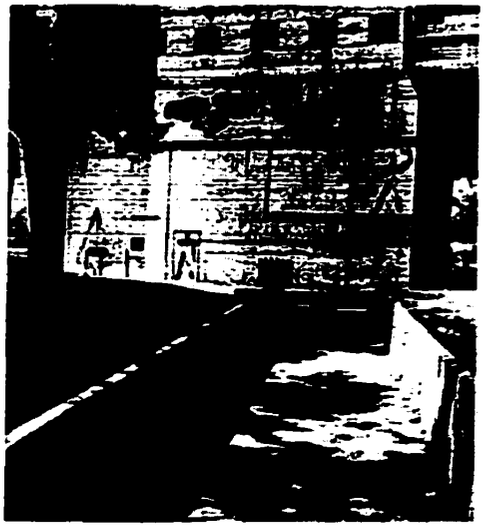

**Figure 89**

Bridge-like entrance to the Unite d'Habitation of Berlin (early 1960s).

**Figure 90**

Entryway of the Suleyman mosque (Jeanneret 1911). Notice the feeling of bridging, with a strong axis creating a local symmetry.

The bridge was brought into Villa La Roche within the theme of promenade. As described in Chapter Two, it connected the two contrasting zones of the villa. The extended corridor appears like a bridge soaring over the main entrance hall. Its straight path provides actual connection as well as a panoramic view over the hall. At one end of the bridge is a door to the private section (bedrooms and internal living area), while the other end opens to the "public" section where the gallery is central.

**Figure 91**

The bridge-like corridor of Villa La Roche.

The idea of the sense of human power and subjectivity that can be gained through walking on a bridge is affirmed on feeling suspended, "seeing" the whole scene changing

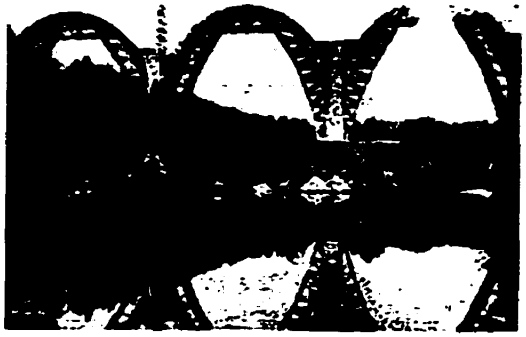

**Figure 92**

Photograph by Le Corbusier from The City of Tomorrow, 156.

and unfolding, the only constant being oneself. The surrounding space supports a collection of mere objects situated before one's eyes. More possibilities of relationships to be explored arise with each step, creating the atmosphere of an architecture "whose objective is to create relationships"[8] as Le Corbusier defined it. The subjectivity of human consciousness discloses itself through that ability to link, "relate and separate". The bridge rises over "things", akin to the "world of all things" that appears in the teachings of Heraclitus. He classified the whole world metaphorically as a ladder with earth, wet mud, and water at the base, and a holy fire at the top. For him, humans can be elevated upwards (spiritually) only when they can raise themselves from the moist and heavy emotions at the base and move up to the dry, bright, and pure place of spirit at the top. In Heraclitus' teachings, being at the top means sharing the light and experiencing the unity of things rather than simply their plurality. He describes the upper reaches as a place where: "we move from 'all things' to the unity they symbolize."[9]

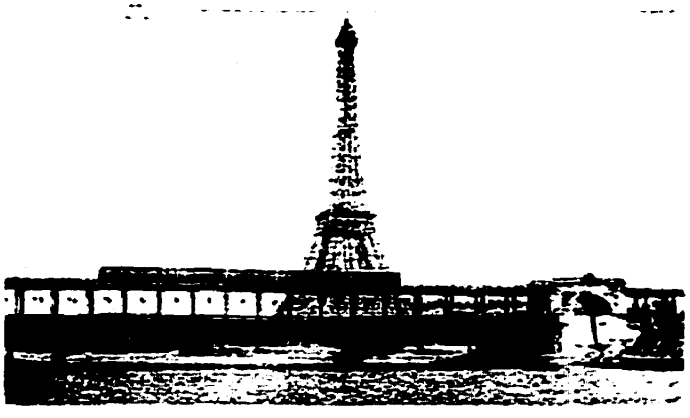

**Figure 93**

A nineteenth century iron bridge manifests the human power of linking and crossing within a new machine aesthetic (The City of Tomorrow, 56).

[8] Le Corbusier, Decorative Art, 126.
[9] Northrop Frye, Myth and Metaphor, 41.

Another characteristic of the bridge is the complexity of its paradoxical identity. One form of this paradox is the interchangeable aspects of the part and the whole having a double existence inside and outside the surrounding context. The same paradox characterizes Heraclitus' holy fire that burns at the top level of the ladder and unites everything that exists on the lower levels. The fire is not outside the world, even though it overlooks everything. The bridge has the same capability of passing over existing things while being itself part of them. For example, the flying bridge over the entrance hall of Villa La Roche gives a panoramic vision over the space while being at the same time one of the elements of that space. A comparison can be made with Christianity where each believer has faith in having his "being in Christ and of having Christ in himself."*10*

**Figure 94**

**Pont Galabarit, photographed by Le Corbusier. A new power of connection became available to humans thanks to new means and a new aesthetic of construction (The Decorative Art Of Today, 58 ).**

**Figure 95**

Le Corbusier's sketch of the Obus project, a proposed motor-way bridge over the city of Algeria. A view from the sea (1931).

[10] Ibid., 42.

Bridges had attracted Jeanneret since his early years, and remained essential for his most adventurous urban designs during his mature years. The bridge was one of those vital elements that constituted for him the importance of a new aesthetic based on industry. The amazing new forms of bridge- construction symbolize the human ability to cross over all natural obstacles. The bridge reveals Le Corbusier's own crossing over history: he first saw it through the Gothic-revival eye as a picturesque element; later he conceived it with the modern eye as a symbol of human advancement. In Algeria, in his proposal for the Obus Project, Le Corbusier raised the bridge some 120 feet above the *Casbah* thus isolating the old section. The bridge mastered two extremes: the historical part with its relaxed pace, and the rapid movement of the new age.[11]

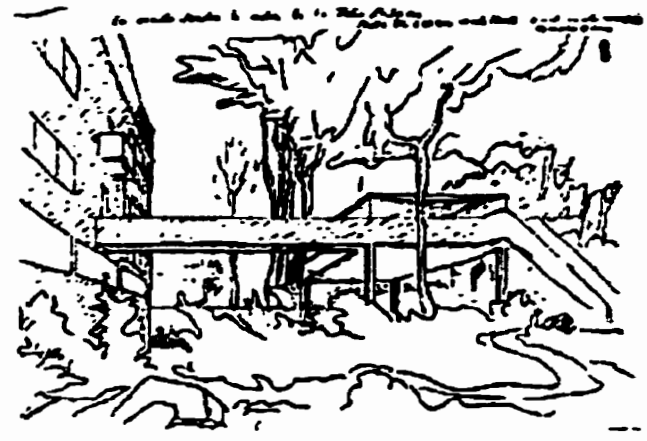

**Figure 96**

View of the stair and the bridge-like entrance of Villa Meyer " as sketched by Le Corbusier in 1925.

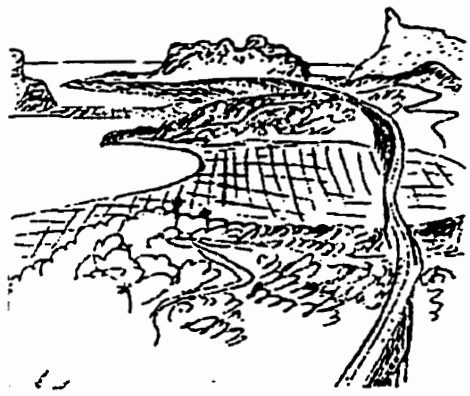

**Figure 98**

Aerial view of the Obus project.

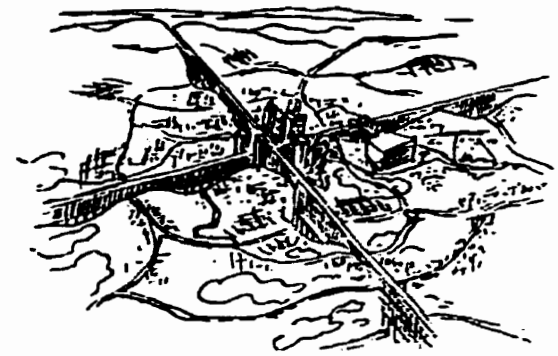

**Figure 97**

Another Corbusian adventurous planning idea for Sao Paolo. The whole design is controlled by bridge-like highways.

[11]"The *Casbah* is nothing but a vast stairway, a platform invaded every evening by thousands of worshipers of nature". (Le Corbusier, La Ville Radieuse, 233; quoted in Le Corbusier's Archive, xiv).

## 3.2. Development of ideas

The idea of a promenade within human dwellings was not common in Europe. Visual and dynamic continuity did not exist in the conventional understanding of the European house; on the contrary, a deliberate cut usually separated adjacent rooms. Decorations were implemented to assert the idea of non-continuity by framing each room as a complete space.

In contrast, Le Corbusier chose to emphasize continuity of space; it was one of the elements that he developed through his crossing over time and space by journeying. His buildings became journeying spaces that integrate to form a final perception of promenade, and where the role of memory collects the experiences within a continuity of vision. For Le Corbusier, the role played by the journey in creating new possibilities for change was an important one. The outward-directed gaze enabled him to cross beyond the dominant traditions to grasp other cultural experiments and synthesize them freely according to novel conditions. In Villa La Roche, the change was expanded to encompass the conception of the dwelling place. The imported influences were vested with significance by the advent of a new industrial epoch having its new perceptions and new materials.

**Figure 99**

Un-identified project with strong axis, sketched in La Chaux-de-Fonds (before 1916).

The more egalitarian society that developed between the two world wars was a factor in exposing the impotence of the old social system. Reinforced concrete and its plastic abilities spurred the change and offered the means to escape the old heavy constructional obligations. And finally, the new spirit of the age represented by the efficient glittering, though simple, forms of the machine was another stimulus for change.

## ◆ A human cell dwelling

> *We must never, in our studies, lose sight of the purely human 'cell', the cell which responds most perfectly to our psychological and sentimental needs.*
>
> Le Corbusier, The City of Tomorrow

Although Le Corbusier referred to his dwelling places as *Machine à habiter*, he saw them as human cells needing oxygen, sun, and greenery for nourishment. Covered with a pure membrane, these cells maintained a private identity; "piercings" and apertures, added a public dimension. While the pure geometrical structure of these cells gave them an imposing presence in the midst of organic nature, they nevertheless appeared as fully integrated with the surroundings.

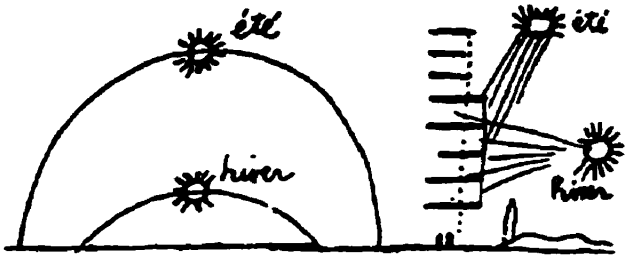


**Figure 100**

Sun, ventilation, and greenery were included in many of Corbu's illustrations of the efficiency of cells (Ouvre Complete).

Nature was brought into buildings both as a healthful and a meditative element. Sun, air, and greenery were seen as necessary for the physical and emotional wellbeing of those dwelling inside. The integration of the natural elements with the building function and with the actual being of the occupiers produced, at times, a surreal experience. The echo of nature appears in certain designs like that of La Roche, where the side wall was recessed to make a place for the mature acacia tree, thus using its greenery instead of simply cutting it down.. The same spirit appeared later in the pavilion of L'Esprit Nouveau (opened on July 1925) where the roof of the terrace was pierced to let a tree find its way

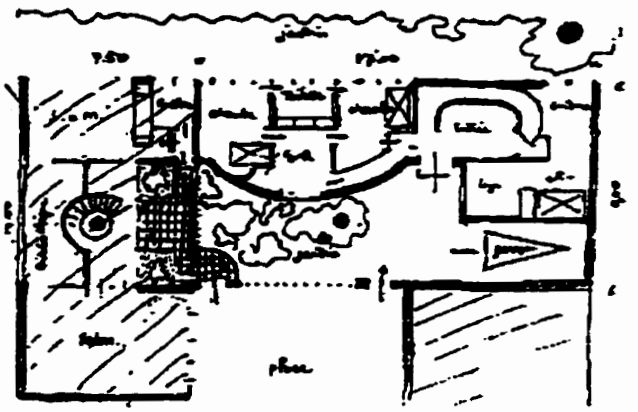

**Figure 101**

FLC 15254. A primary version of the plan for Villa La Roche showing a relationship between the trunk of the acacia tree outside and the core of the circular stair (both on the same plane).

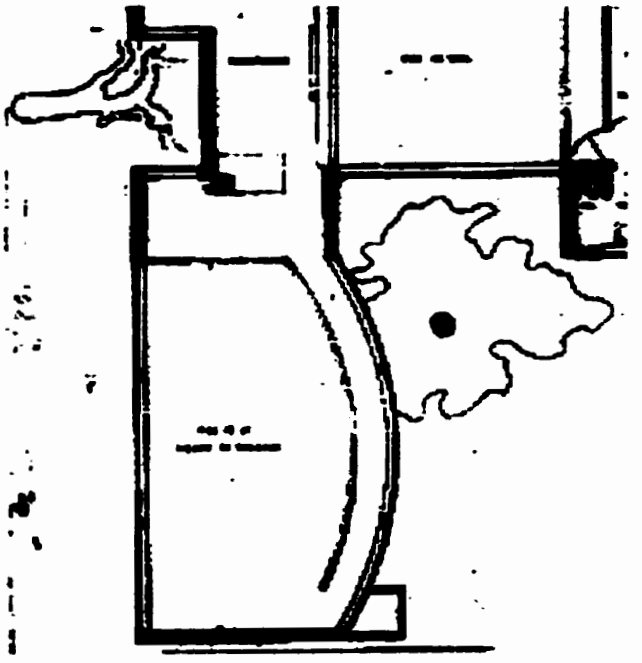

**Figure 102**

Part of FLC15175. The final solution accommodated the presence of the acacia tree.

upwards (see Figures 101 and 102). The structure of the cell is imposing in its pure geometrical language which echoes the human mind; at the same time it is striking in its quality of being organically nourished.

**Figure 103**

The Esprit Nouveau pavilion demonstrates the main characterizing elements of movement, pure shape, white-washed color, dominating form, terraces, and a link to nature within dominance.

The tree was left intact, both in Villa La Roche and in the *Esprit Nouveau* pavilion, to be a source of meditation, a focal point of the relation between the building and nature. Le Corbusier was convinced that trees play a significant role in maintaining human equilibrium. They are, as he stated, "a proportional mean which would completely satisfy man's accustomed

**Figure 104**

The view from inside the terrace in the *Esprit Nouveau* pavilion. A surreal scene is created by the presence of the natural elements that allow a play of filtered light and shade on the pure white walls of the interior.

**Figure 105**

Sketch of a street in Stanbul (1911). Le Corbusier's caption reads: "Trees everywhere, and rising from among them noble examples of architecture" (City Of Tomorrow, 80).

needs, and bring him joy recreation, beauty and health! . . . The tree in any case helps our physical and spiritual well-being."[12] The lesson of the tree, as Le Corbusier referred to it, was learned in Stanbul where he first saw a city nourished by trees, and first heard the Turkish proverb (which he often repeated) : "Where one builds, one plants trees."[13]

Le Corbusier's appreciation for the dimension that trees can add to architecture as a meditative element probably has roots in Schure's The Great Initiates. He would have read that throughout human history, trees have been linked to the idea of spiritual inspiration because they witnessed moments of human enlightenment, and so were considered sacred .[14]

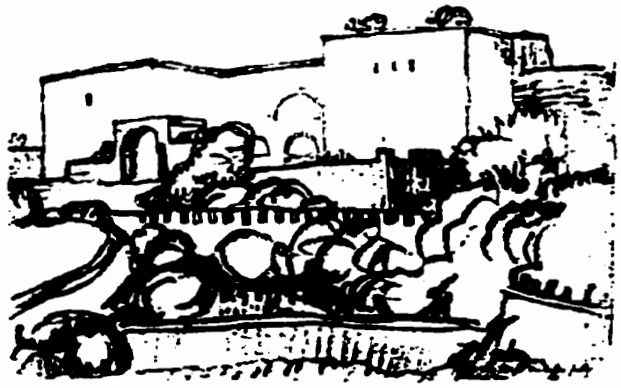

**Figure 106**

Integration of the pure white marble structure into the surrounding greenery, an idea that was used extensively in the 1920s villas.

[12] Le Corbusier, City of Tomorrow, 79-80.
[13] Ibid. , 80.
[14] Edouard Schure, Great Initiates, 40.

The idea of the cell building came to Le Corbusier on his first journey to Northern Italy. As he himself reported, Le Corbusier's first inspiration for the concept of a living cell was in the monastery of the *Grande-Chartreuse d'Ema*.. There he spent a week occupying one of the monk's cells and enjoying the privacy in a modest, multi-room dwelling provided with a fireplace, cellar, and extended by a terrace over a small private garden with flowers, vegetables, and fruit trees. Spacious, comfortable, dynamic, and vibrant, it was quite unlike most of the common examples of narrow, ill-lit monk's cells of the other monasteries at that time. The experience had a profound and lasting effect on the young Jeanneret. He did not forget to visit the place again four years later while touring on his journey to the East. It established in his mind some of the qualities of the ideal dwelling place: he was offered meals, had the opportunity to contemplate in private, to commune with nature, to stroll in the countryside, and also to share with the brethren at service and common meals. In Ema he experienced several contradictory dimensions

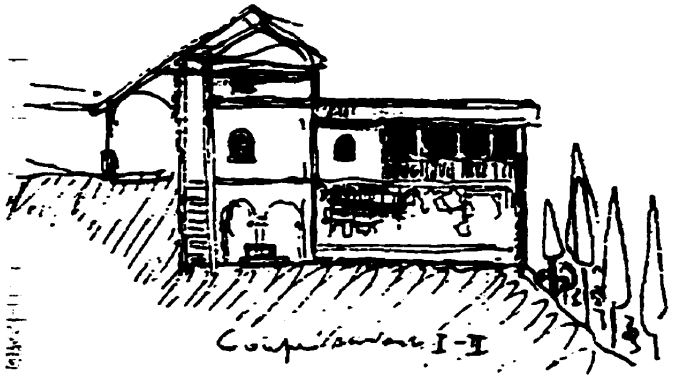

**Figure 107**
The section of an Ema cell.

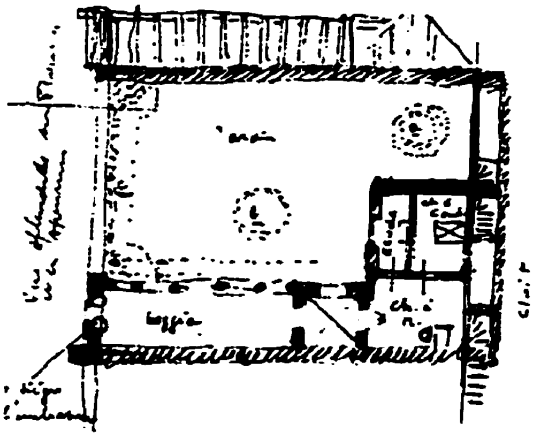

**Figure 108**
Plan of one of the Ema cells.

set in harmony: he lived in privacy while enjoying a public life with the brethren; and he was given a relaxed space for meditation while living in a labor intensive environment. The distinctiveness of each cell while being part of a larger social harmony was one of the ideas that impressed Le Corbusier: "From that moment on I saw the two terms, individual and collective, as inseparable. . . ." [15]

The private, individual existence was seen as the nucleus for achieving a collective integrity. The former indicates the private realm with all its inward meditative reflections – the hidden reality. The latter is composed of the extended relationships that take place publicly and include the outcomes of the former. Le Corbusier appreciated both realms and understood the importance of finding a suitable way to bring them together in a rich mutuality. For Le Corbusier, the house project included a working relationship between the two realms, the public and the private. The house is a structure that should embody all the possibilities of the human being, physical and mental. Its walls are opaque enough to secure and protect the hidden private side of the individual's existence. At the same time the covering 'skin' controls the relationship with the outer realm. The skin defines the

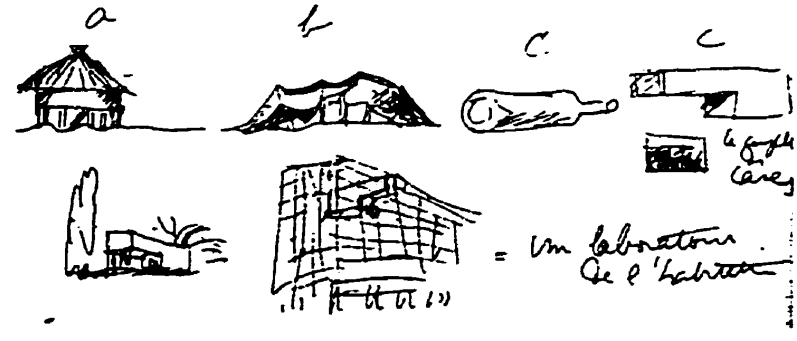

**Figure 109**

**The development of the cell structure from a primeval individual expression to the final standard shape, inspired by volumetric industrial designs – mainly the bottle that once inspired Perret – that can fit in a collective *Unite d'habitation*.**

[15] Le Corbusier, The Le Corbusier Archive; Unite D'Habitaion, Marseille-Michelet, Ed. H. Allen Brooks, Le Corbusier's Formative Years, 35.

existence of the private although, by wrapping the body, it gives an appearance which is the very essence of the public. Thus houses are the centers for the private activities of individuals, which form collectively the fabric and the shape of the city.

**Figure 110**
A balcony cell.

In Villa La Roche, the cell idea evolved on a human scale. A private experience of meditation is provided for a single participant within the pure cubical boxes, one jutting over the internal hall and another over the external view. At each point, the pilgrim enters a viewing box for meditation that resembles a monk's cell with an aperture for looking out. The two balconies are pure volumetric cells that jut over two opposite modes of imagination. They symbolically portray the inner and the outer look as parallel.

Le Corbusier respected the private life and protected his own throughout his life and career. In the midst of his four-year journey, Le Corbusier returned to his native city and spent almost five months in a remote Jura-type farm house. The same scenario was repeated at the end of his journey when he decided to start his career where his roots were, in La Chaux-de-Fonds. Having an isolated place to enjoy his privacy as much as he enjoyed publicity became part of Le Corbusier's personality. In his later life, he designed for himself an architectural office in the form of a nine-foot rectangular cell with blank

**Figure 111**

Le Corbusier in his remote cell, a typical perfect square in the midst of nature. The Corbusian window establishes a link between the hidden and the visible realms.

walls. His last dwelling place was also a small cell-like cabin in Southern France.

**Figure 112**

A well developed roof-garden at the top of the collective *Unite* of cells. The suspended roof became a new kind of manufactured mountain.

Le Corbusier justified isolation as a necessity for supporting a creative élite. The concept of the monk's cell remained in his mind as an ideal private place that is also part of a successful communal life. Addressing the students of architecture in Paris, Le Corbusier advised them that "art is deep love of one's ego, which one seeks in retreat and solitude . This ego speaks of things embedded deep in soul. . ."[16] The words seem to echo Nietzsche's Zarathustra who left his home at the lake-side and went up into the mountains. "There he possessed his spirit in solitude. . ."[17] Having enriched his soul, Zarathustra went down to his people whom he wanted to liberate from the folly of conventional 'wisdom,' but they could not understand the directness of his speech: "Too long, perhaps, have I dwelt in the mountains, listened too long to brooks and trees: now my speech is to them as that of goatherds."[18]

To provide a link between the private realm within the dwelling and the public realm without, windows were carefully placed. During his journey, Le Corbusier became

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[16] Le Corbusier, Entretien avec les etudiants des ecoles d' architecture, (Paris: 1943), translated as "Talks With Students", (New York: 1981) ; quoted in Charles Jencks, Le Corbusier and the Tragic View of Architecture,(Cambridge, Mass.: Harvard University Press, 1937) , 24.

[17] Nietzsche, Zarathustra, 1.

[18] Ibid., 10.

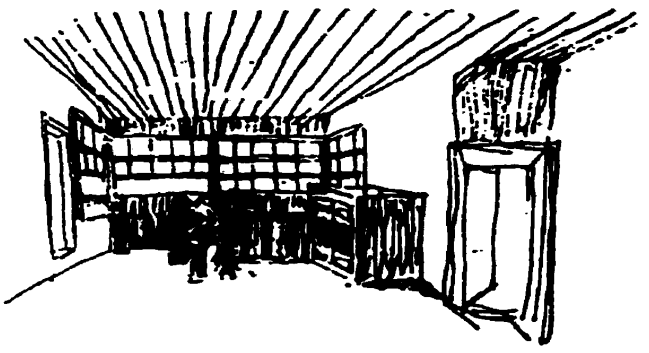


**Figure 113**

The *Fenetre en longueur*, as Le Corbusier named it, in one of the vernacular buildings of Turnovo: ...the window takes up the entire wall" (Journey to the East, 62)

interested in the *Fenêtre en longueur*, which he shows in a sketch of the vernacular buildings of Turnovo (between Turkey and Bulgaria.) This elongated window, that Le Corbusier first implemented in Villa Jeanneret shortly after the end of his journey, was later developed in his cells as the ribbon window. The new window expression extended the dweller's vision outside, this in turn enabled a better cell function. Le Corbusier saw the continuous window type also as a reflection of a new machine aesthetic represented in ships, trains, and airplanes that have the same form of window. The new aesthetic was meant to literally (en)lighten the cell experience.

**Figure 114**

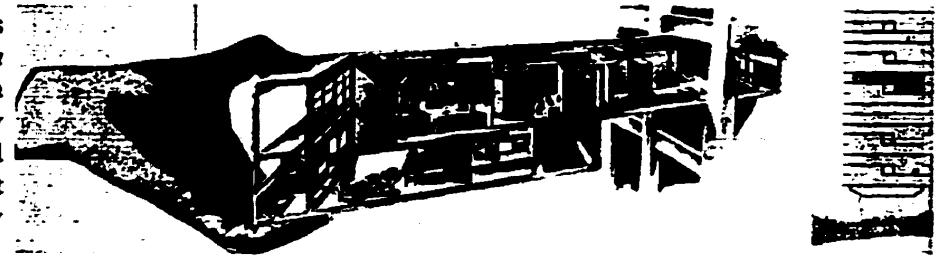
The "Aquitania" ship. Le Corbusier commented: "A wall all windows, a salon full of light. . ." Towards A New Architecture, 97.

As any cell is sheltered by a membrane, inside which the nucleus with the live substance is located, Corbu's cells also have a membrane for outer exchange with the surrounding cells where they all collectively establish a living body. The relation between the self and the world outside was one of the lessons that he would have learned from journeying. The monastery is a collection of cells, where each cell with its needs has an impact on shaping the collective. One of the

early examples of Jeanneret's use of the idea was his parents' villa of 1912, where the white color for the dwelling was implemented for the first time. The first sign of a dynamic interior appeared in the development of the structural system (though not yet in the structural materials). The growing fluidity and the flexibility between inside and outside also began to evolve at the same time. But not before the 1920s villa were these ideas set out in full-fledged designs that embodied most of his new conceptions of architecture and town planning. Thus the importance of Villa La Roche is precisely that it is one of those early villas of the twenties in which Le Corbusier's conceptions had their first real concrete form.

**Figure 115**

A mature compressed cell is positioned in the rack. *La Unite d'Habitation* is a development of the early cells of the 1920s assembled together in a new order that creates a new social city raised on pillars.



In Villa La Roche, the cell was partially raised on pillars, the structure had a more lively interior, and Le Corbusier began to articulate the suspended balconies with a new relationship to nature. As in any organic development, the early example of Villa La Roche (one of the earliest of Le Corbusier's series of 1920s cells) revealed a vital period of growth. After the human cell had been planted on the ground, it began to grow upwards (notice the emergence of pillars in part of the villa and the springing up of a small roof garden) before it was raised completely from the ground in the late 1920s villas, with its mature articulation in Villa Savoie of 1930. By the middle of the century, the ripened cell would have a social role by being placed in a huge unit of habitation or a

complete city raised on pilotis. For Le Corbusier, the conscientious analysis of the cell was the way to maintain an efficient organ. Le Corbusier summarized the process thus: "Let us analyze the needs of the family (i.e. a 'cell'): also, what is necessary for a given number of such cells is their mutual relation to each other, and let us see how many cells can usefully be combined together to make a manageable colony. . ."[19]

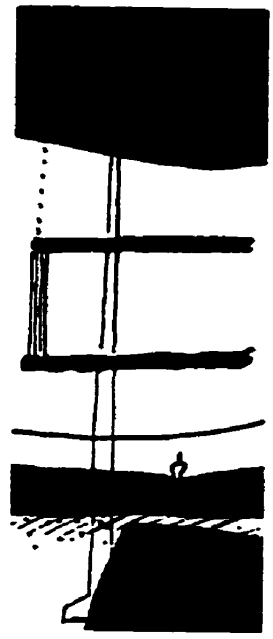


**Figure 118**

Le Corbusier's illustration for a developed cell raised on pilotis.

## 3.3. *Promenade Architecturale*

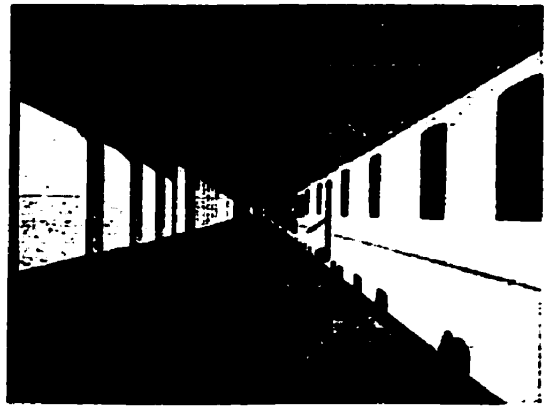


**Figure 116**

The Aquitania: continuous window typical of ships. Le Corbusier commented: "the value of a (long gallery) or promenade. . .a fine grouping of the constructional elements, sanely exhibited and rationally assembled"(Towards A New Architecture, 98).

**Figure 117**

The corridor of La Tourette (early 1950s).

[19] Ibid., 215.

The idea of Le Corbusier's *promenade architecturale* is arguably one of his earliest and most significant ideas. It was mentioned earlier how the bridge-like walkway at Ema was an early experience of this notion. From 1907 till 1923 the idea received several elaborations in Le Corbusier's work; it reached its first mature manifestation in Villa La Roche. The maturing of the promenade was dependent to a great extent on the development of the means (new materials and methods of construction) that provided Le Corbusier with new possibilities for implementing the notion. The early idea which was, then, received from an early journey was enriched by further journeying. Extending his vision led to the development of the means of structuring the idea, and the locomotion for that inspiration was the actuality of new industrial capabilities. The architectural promenade can itself be a display of the process of journeying through space and time. Not only the elements but also their metaphorical potentials can give a stronger manifestation of the conception. Le Corbusier's personality and education point to his strong symbolic imagination. He was aware of that aspect of architecture as early as 1911 when he wrote to L' Eplattenier: "I consider that an architect must, above all, be a thinker. His art which consists of harmonious abstractions, lacks the possibility to describe or to depict except by symbols."[20]

Le Corbusier conceived architecture as a process that was meant "to establish emotional relationships. . ."[21] Combining distinct elements within harmonizing relationships is the essence of all the arts, particularly poetry. The combining

[20] Quoted in Charles Jencks, Le Corbusier and the Tragic View of Architecture, 25.
[21] Le Corbusier, Towards A New Architecture, 4.

relationships fall within the realm of the human mind's efforts to enhance the evolution of poetic and abstract emotions. A promenade, on the other hand, is a dynamic relationship between various distinct elements within space and time. The exhilaration of a promenade is mainly based on the human mind's power to connect views by forming logical or poetical relationships. The view from outside alone cannot establish the notion of promenading because it does not provide the mind with the set of required connections. Promenading needs a continuous process of internalization and externalization. The physical existence and navigation inside the space can lead the mind to explore the existing relationships, if there are any. For this reason, the more the path meanders, the more it can initiate the experience, especially if the space is dominated by dynamic characteristics. Such navigation, as Frye describes, would take "the form of a continuous series of adventures. . . [also] . . . there would have been something inside the traveler to resonate against. The experience of journeying would often be at the same time a journeying into oneself."[22]

The journeying into oneself is a subjective exploration of the relationships between different objects. The process can be called

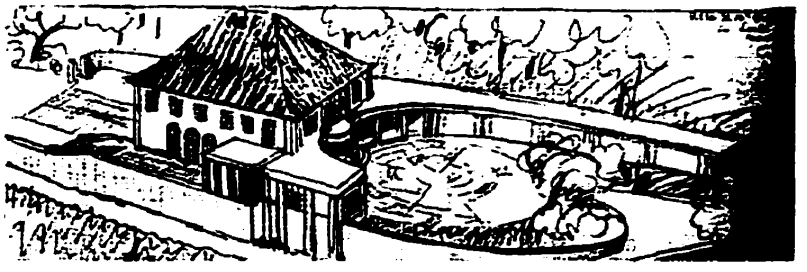


**Figure 119**

**Villa Favre-Jacot has a walled yard with detached columns like Villa Hadrian of Italy.**

[22] Frye, Myth and Metaphor; 221.

"objective correlative", which is "a set of objects, a situation, a chain of events. . which must terminate in sensory experience. ."[23] The description gives an account of an emotional experience that is completed once the chain is terminated. The experience itself should have a limitation or a frame within which it reacts. In order for the experience to resonate in one's mind, a boundary, the body's own limit, needs to be acknowledged. The same schema can be applied to the structure of the promenade: it needs to maintain a certain control over its own border. Notwithstanding its fluid relationship to the outside. Like a journey it encompasses links with various places while the whole trip has its defining lines. The manner of "defining" is a subjective act that is related to certain mental affinities. Refining limits enables one to master a place by portraying any view within a frame fitted within one's eye and mind. Walking in a superhuman scale upsets this mastery; but the more precisely the space is defined the more easily it can be objectified. The earliest human attempts to define a dwelling involved cutting out a portion from nature. Inside the defined boundary is the ground on which one can constitute one's own promenade according to one's code of comprehension and being. The boundary line finds its best materialization in the outside wall that separates the world from the inside private one (which by definition, belongs to an individual or group of individuals, and is kept exclusively for their own use). The boundary then tends to reflect the inhabitant. "The walls of a dwelling reflect the soul that inhabits it. . ."[24]

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[23] Ibid., pp.33

[24] Le Corbusier, Journey To The East, 50.

One of the specific elements of *promenade architecturale* in contrast to nature is that the latter is too public to belong entirely to the individual's subjectivity. The superhuman scale of nature, as in the midst of oceans or deserts for instance, does not enable objectification. The dynamism of such undefined spaces is reduced to extreme fluidity. The promenade needs to be contained within a defining limit. The walls of a building stand as a barrier against the fluidity of the outside; they constitute a measurable ground that can be the basis for a mental and physical promenade. The position of walls as a cutting edge between what is inside and what is outside lend to the structure an imposing presence. An early villa that caught Jeanneret's attention while he was in Italy in mid-October 1911 was the Villa Lante with its imposing character and its outer walls embracing the gardens. A strong resemblance can be seen between the Villa Lante and the early design sketches of his parents' villa at the end of the same year.

**Figure 120**

Villa Lante, Bagnaia,as sketched by Jeanneret in September 1911 (FLC6110).

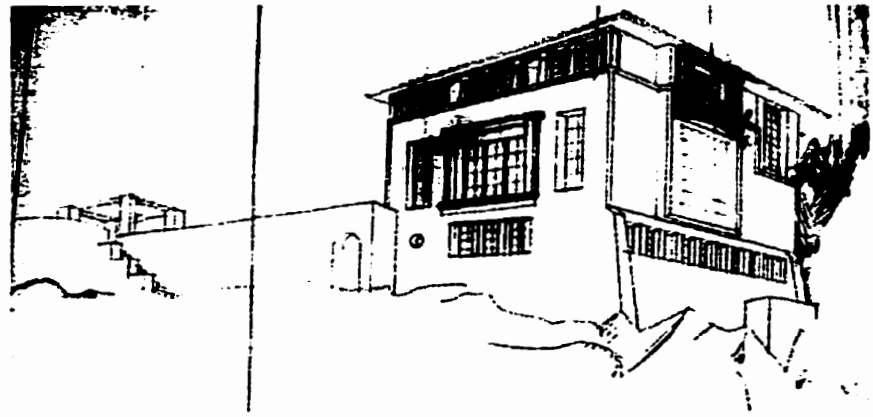

**Figure 121**

An early sketch (January 1912) for vila Jeanneret/Perret (FLC 30266).

Other villas of Italy appear in Le Corbusier's sketchbook; many of them show an emphasis on the boundary walls that contain gardens and trees (see Figure 123, Hadrian's villa). These garden houses came to fascinate Jeanneret, and throughout his journey he traced in his sketchbooks many of the vernacular Turkish examples. Enjoyment of these gardens was made possible by controlling their limits, and increased by providing a shaded secure ground in a position from where one could oversee them. Many of the Turkish houses were extended by a pergola to add a shaded terrace raised over the garden promenade. This expression was transferred by Le Corbusier to his parents' villa (the first villa to be designed after his arrival from the four-year journey). The photograph of *Jardin d'ete* (Figure 118), taken from under the shaded walkway of Villa Jeanneret, greatly resembles the impression in his sketch of the vernacular Turkish house at Kazanaluk. Jeanneret would have enjoyed the experience of those shaded places during the hot July of 1911 when he was in Turkey.

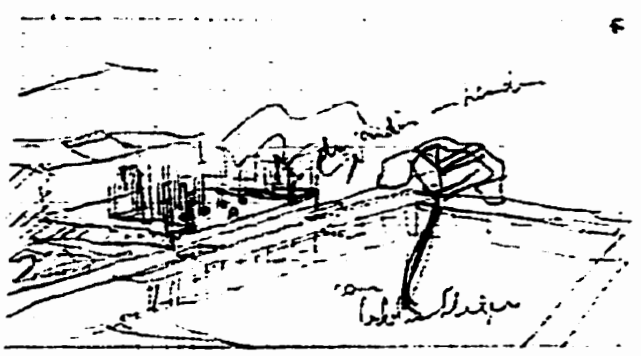

**Figure 123**

**Hadrian's villa sketched by Jeanneret 1911.**

**Figure 122**

**A developed perspective of Villa Jeanneret maintains the imposing manner and the containing walls, but here columns are attached, like the walls of Villa Hadrian.**

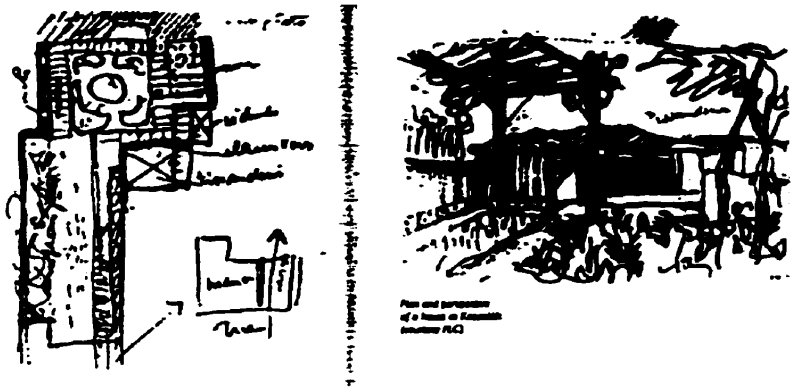

**Figure 124**

Vernacular Turkish house in Kazanaluk sketched by Jeanneret as both plan and view from beneath the pergola. Notice the resemblance between this scene and the next figure.

**Figure 125**

Photograph by Jeanneret of the *Jardin d'été* of villa Jeanneret a short time before completion, from under the pergola-like pathway.

In fact, his parents' villa witnessed Jeanneret's first attempts to establish a promenade. He designed a systematic journey from the street through the garden and to the door of the villa. A circuitous path starts from *rue de la Montagne*, and climbs the stairs before meandering inside through the garden to a solid shed in front of the entrance door. The following project of Favre-Jacot (early 1912) was a continuation of the promenade idea. Unlike his previous villas, here Jeanneret allowed the promenade to

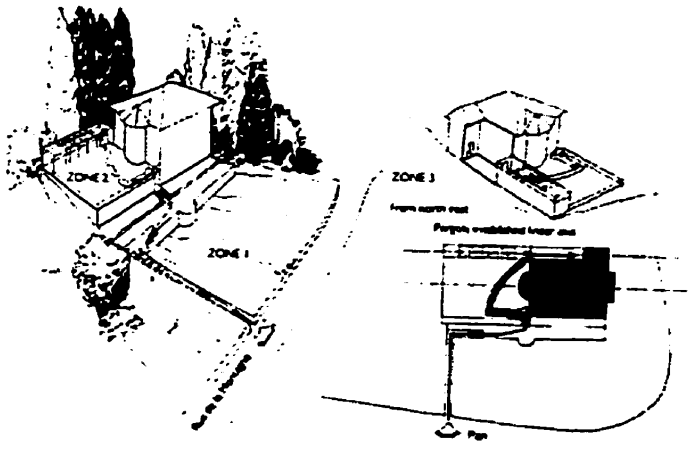


**Figure 126**

Illustration for the circuitous path outside Villa Jeanneret/Perret ( Baker,The Creative Search, 195.

penetrate the dwelling itself. He extended the path from the front garden to a back yard on an axis that cuts through the interior of the villa. In this first project to integrate the interior with the exterior promenade, Jeanneret drew a straight path running through four consecutive spaces (entry, vestibule, hall, and living room). In spite of its apparent simplicity defined by a straightforward axis, this early promenade contains some truly rich spatial elements. Early asymmetries can be traced in the strong symmetrical design. The main facade shows a compromise between two different axes. The entrance, aligned by two symmetrical windows and crowned by some symmetrical openings, follows the symmetrical axis of the interior, while the lateral wings are accommodated to another exterior axis marked by the radii of a concrete circular forecourt. The tension between balance and imbalance is asserted by the higher floor that gives a false impression of symmetry (notice the roof and the additional window at the right side).

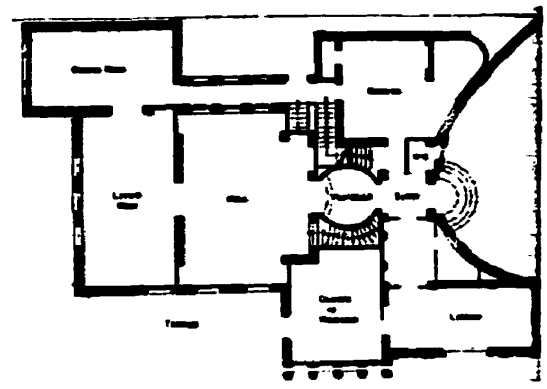

**Figure 127**

Plan of villa Favre-Jacot. A strong axis marks a path inside the dwelling extended from the exterior.

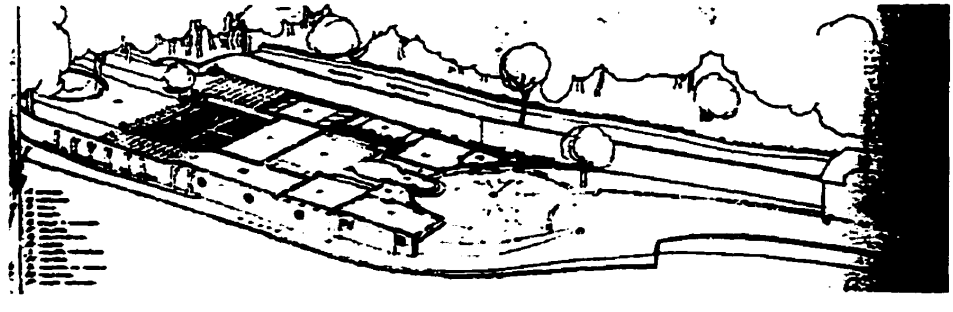

**Figure 128**

An axonmetric plan for Villa Favre-Jacot showing the continuity of spaces forming a strong axis that penetrates the interior

In spite of the tension between symmetry and asymmetry, a continuous local symmetrical vision was sustained for the stroller along the whole axis of movement. The plan with its non-absolute symmetry gave rise to another special journey preserved for the owner. From the back yard, a bridge-like stepped walkway (remember Ema's walkway) ran between the inside property and the natural surroundings until it ended at a special room attached to a library. The *Chambre de Monsieur* and its attached library both have a strong link with the interior and the exterior as they are placed, within the villa, exactly at the perimeter of the property. They have a spatial link with the interior and a series of windows gazing out establishes the connection with the exterior. The bridge has the contrasting character of being at the same time a walk-way and a resting terrace that controls the promenade and nature outside (akin to Villa La Roche's internal bridge). Bridges were employed by Le Corbusier to achieve links between opposing realities. They provide a concrete ground for sensibility ( physical action) and image (mental power) to meet harmonically.

**Figure 130**

**Main facade of villa Favre-Jacot.Le Corbusier's first execution for an assymmetrical facade.**

**Figure 129**

**The bridge-like walkway at one side of Villa Favre-Jacot leading like a promenade to the *Chambre de Monsieur;* some seats can be seen on the terrace on the same axis.**

Ricoeur described the play of the imagination in fiction as "a movement deriving from previous exercise of a sensible faculty."[25] Ricoeur asserted the importance of the dual action for producing a way of seeing reality (or imagination), and he went further by putting them in order to insure their integration: "The kinship between physical and mental pictures suggests that one is able to transfer his capacity from former to latter."[26] The bridge was chosen to play the pivotal role in providing the promenade experience. It gathered the two main powers (physical and mental) as an axis and a path of motion, on the one hand, and a suspended terrace with a pausing mode for contemplation on the other.

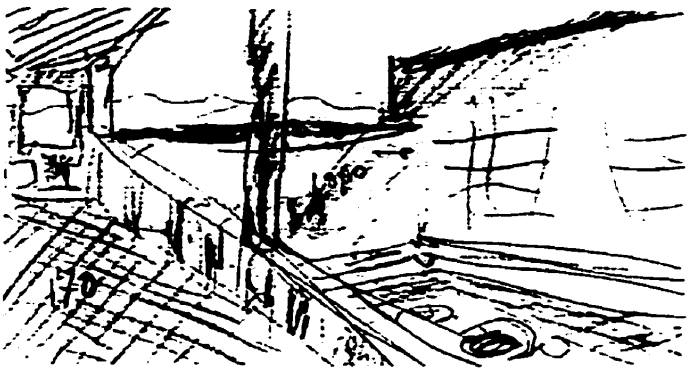

**Figure 131**

The terrace of one of the Ema cells as sketched by Jeanneret, presenting the quality of both terrace and internal path.

**Figure 132**

Villa Cook, close in expression to the Ema "double-identity terrace". The terrace idea was asserted by jutting part of the walkway while the rest was kept on the same path.

[25]Ricoeur, Function Of Fiction , 125.
[26] Ibid. , 128.

**Figure 133**

**Path under a pergola allowing a meditative view, as sketched by Jeanneret for an unidentified project (possibly Villa Schwob)**

In fact, Le Corbusier had been developing . the form and conception of terraces since the early journeys. In his sketches of the Turkish vernacular houses, terraces were usually shown raised on a shaded platform. At Ema, Jeanneret did not neglect to sketch the suspended terrace over the private garden and courtyard of one of the monk's cells (Figures 131). The sketch depicts the terrace as a superior resting ground over the walled property, the whole scene overlooked by a mountain that appears at the rear. Jeanneret chose a certain angle for that scene which emphasizes the extension of the terrace, implying the physical power of the body in motion. The integration of the mental and the physical was provided for in most of Le Corbusier's architectural elements. For example, he furnished the internal bridge of Villa La Roche with a seat, while he rendered the terrace as a path. In his parents' villa he designed *Le Jardin d'ete* as a combination of a shaded squared platform and a stretched pergola located along a latticed-wood boundary

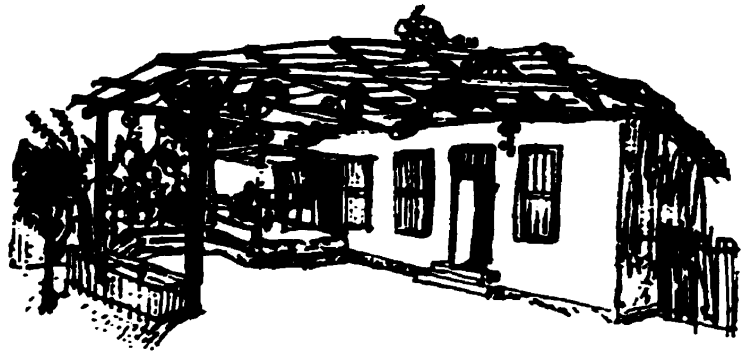

**Figure 134**

**Sketch of a Turkish vernacular house with a pergola and a small terrace raised by a few steps. (Jeanneret, 1911).**

**Figure 135**

Vernacular promenade sketched by Jeanneret.

wall pierced with oval windows (asserting or providing an extended vision). He also sketched the combination of terrace and path in a view of Villa "La Moulinet" (a villa that was never built) in which he portrayed a garden villa with seating places and still-life arrangements under extended pergolas. The shade of the pergolas drew a path that defined the perimeter of the property. The landscaping of the garden not only recalls the typical Islamic gardens, but the pergola reminds one of the vernacular houses, especially at Kazanluk.

**Figure 136**

A pergola with a luxury sitting area at one side and a meditative vision at the other, is placed on the same axis as a long path (a proposal for villa Schwob).

Terraces embody another dual identity as they provide a suspended ground over space, which gives an impression of being exterior to that space, while being themselves a part of the structure of the space. This dual identity, being a part of the inside and the outside, raises a conflict as to whether to look inward or outward. In La Moulinet, as well as in the villa of Perret/Jeanneret, the terrace was located along the perimeter at an intermediate position between the inside and the outside. In Villa Schwob, positioned on

a crowded site within the fabric of the city, Jeanneret sheltered the terrace inside the dwelling. It was suspended over the double-height hall and faced a huge glass panel on the same axis as that of the street. (see Figure 138). Two alcoves jut · out over the same interior hall. They are very private, each rendered as a small cabin with an oval window and side opening: the view in one looks outward through the glass panel; in the other, inward to gaze over the hall (they are not gazing on each other—perhaps to preserve their privacy). The oval windows recall those found in the cabins of ships, while the structure and the privacy attained recall the alcoves of the Turkish houses (see the description in Chapter Two).

**Figure 137**

Le Moulinet as sketched in 1915 (but never built).

**Figure 138**

The internal terrace (mezzanine) of Villa Schwob (1915) over the main living area: note the huge glass panel exactly in the middle, visually linking inside and outside. Notice also the two cabin-like alcoves suspended at rear offering a more private visual experience (recalling the Tukish alcoves).

The idea of privacy which was maintained in the Turkish house was extracted and implemented by Le Corbusier, but in a different context. He did not use it to segregate the two sexes, but to render two different modes of being—the mental and the physical. Le Corbusier implemented private spaces to produce a state of isolation that urges the mind to produce new images of reality. According to Ricoeur, fiction "..changes reality, in the sense that it both (invents) and ( discovers) it". Ricoeur asserts the role of isolation in the process: "..images are taken in isolation; they are taken in isolation because they are not (wrought)."[27] It was no accident that Le Corbusier elevated the terrace to the top of the building. The elevation followed a line of progress that began with an abstraction of the shaded, slightly raised terrace and later found a mature, though not final, expression in the villa of La Roche. In 1912, Jeanneret sketched a proposal for upgrading a partially demolished, vernacular Jura-type farmhouse. The proposal is

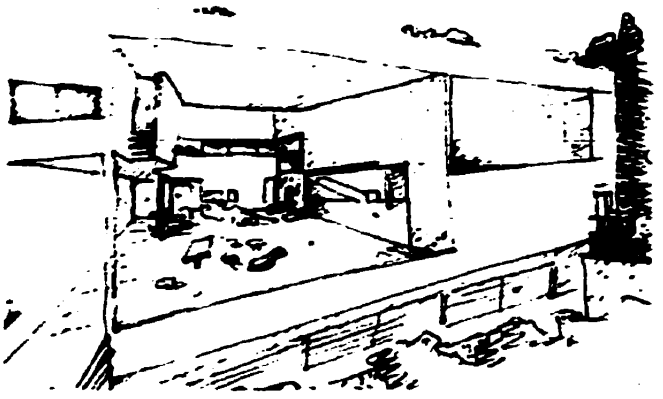

**Figure 139**

An internal terrace with two suspended alcove-like balconies in Villa Ocampo.

**Figure 140**

An interior balcony overlooking Ozenfant's studio and facing a large glass panel. A personal alcove is also suspended over the space.

[27] Ibid.,127.

revealing as it was a powerful indication of a new attitude and a new perception of architecture. The restoration of the original Jura-region house (which previously had been his aim) was modified into a newly synthesized expression with new materials and new methods of construction. What is important here is the intention to raise the terrace. The sketch shows the addition of a roof garden, although not detailed or even clear, instead of the wooden pitched roof and it can be accessed through an outside staircase.

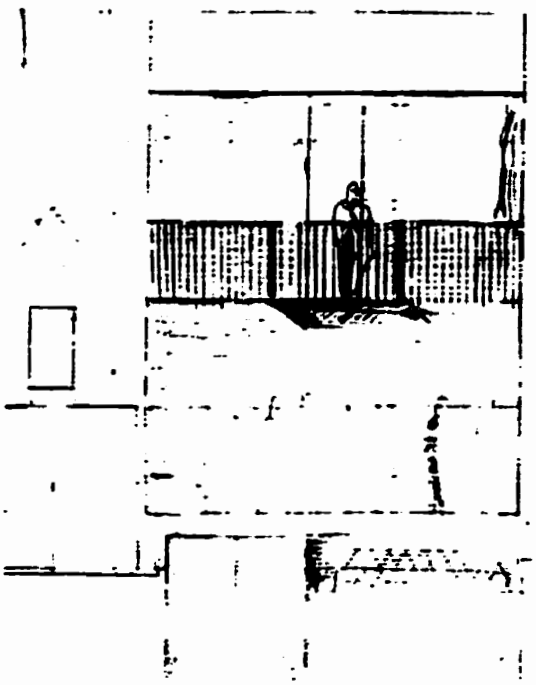

**Figure 141**

An early sketch by Jeanneret of Villa La Roche (the cell idea).

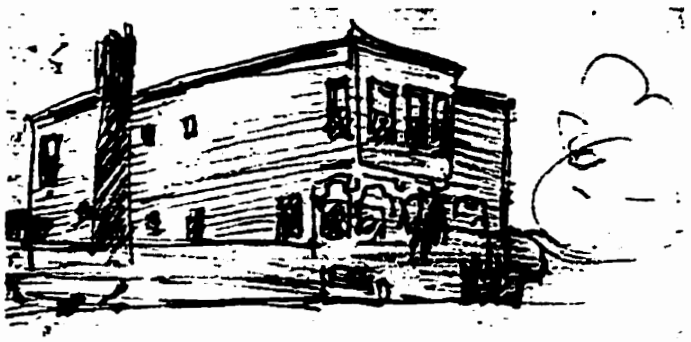

**Figure 143**

Jutting box on the facades of a vernacular Turkish house

**Figure 142**

Sketch of villa Planiex with the significant jutting box-like balcony.

**Figure 144**

Sketch by Jeanneret of a "Konak" of Turkey with the jutting boxes of the facade.

**Figure 145**

Villa La Roche: view from the jutting balcony of the gallery.

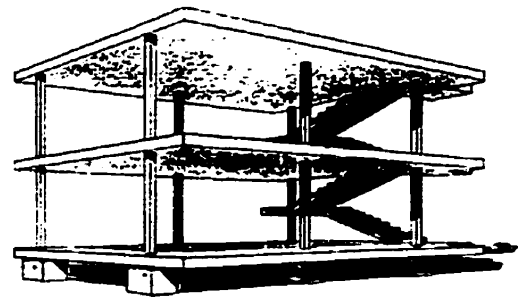

**Figure 146**

The structural frame of the dom-ino example. The flying staircase indicates access to the roof of the cell (1915).

Jeanneret maintained, in an implicit way, the idea of using the roof of the building in his proposal of the Dom-ino system (1915). The simple skeleton structure shows a free staircase that begins a journey from the ground level, makes a landing on the first floor, and continues up to the roof. Some of the project drawings show facades topped with greenery on the roof, but no actual plan is found for these roof gardens. The idea was sketched more plainly when he moved

permanently to Paris after 1916. A sketch dated between 1916 and 1922 illustrates the notion, although his first three projects in Paris (Villa Berque, Villa Ozenfant, and Villa Ker-Ka-Re) did not have the suspended roof-terrace. Villa Ozenfant was provided instead with an indoor terrace overseeing the studio, while a large window pierced the back wall of the terrace (see Figure 140). Also, an alcove-like library was suspended over the same studio. A proposal for a week-end house project included a detailed sketch of a roof terrace with a pergola-like shade. It was not until Villa La Roche that the first complete, though simple, roof garden was actually constructed. Le Corbusier continued to develop the idea until it reached the highly complex design which was built on the roof of the Villa Savoye and, later, of the high-rise *Unite d' habitation* in Marseilles.

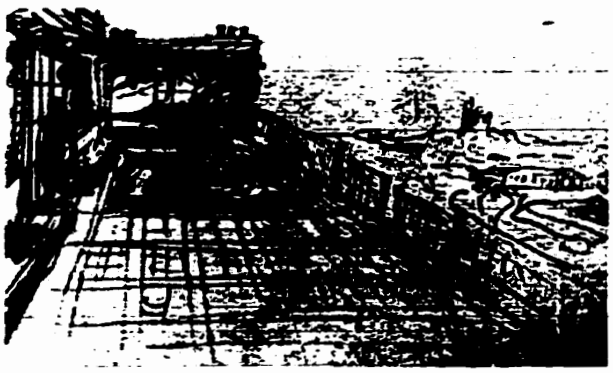

**Figure 147**

A roof terrace sketched by Jeanneret after his arrival in Paris (?) between 1916 and 1922 for an unidentified project.

**Figure 148**

Proposal for a dom-ino facade characterized by slightly raised terrace shaded by a pergola. Note the greenery clearly visible in what appears to be a roof garden.

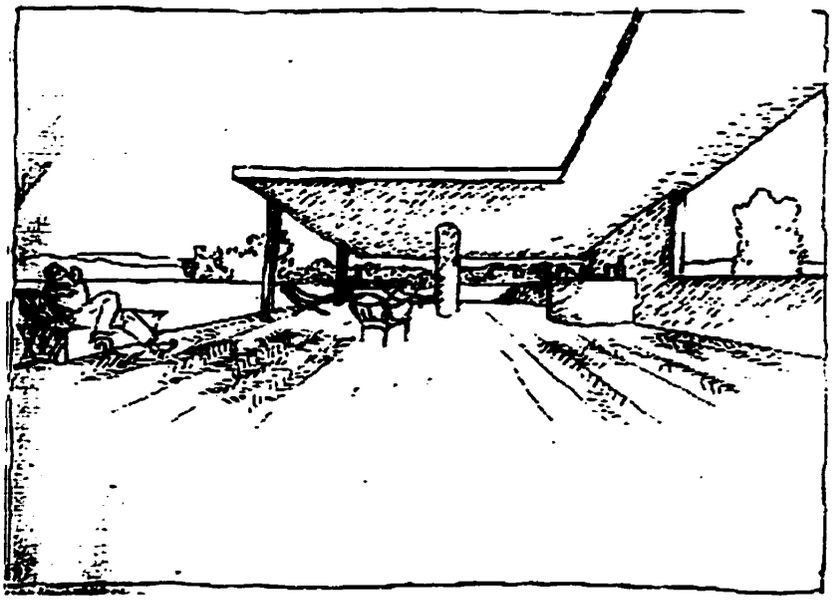

**Figure 149**

**Proposal for a week-end house (1922) that was never executed. It is possibly the first sketch of a view from a roof garden. The roof is shaded by a concrete slab, while the wall is opened by a large void frame allowing an overview of nature. A human figure is seen reclining in a restful position.**

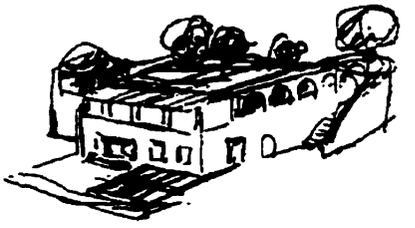

**Figure 150**

**A project, proposed by Jeanneret in 1912 for upgrading a Jura-type house; a roof garden is indicated from the sketch.**

The first proposal for a roof garden in 1912 was characterized by an outside staircase that was of architectural significance to the perspective. The staircase provided not only a dynamic cubical form but also an aerial journey up to an elevated position. In fact, Jeanneret had understood the importance of this element since his early years. His travel carnets included many sketches in which the staircase occupied a significant position, if not a central one. In his parents' villa, the circuitous path outside the villa was defined mainly by the multi-directional stairs that established the first traits of an architectural promenade. His first small commission in Paris (Villa Berque in 1921), was a minor upgrade of a small classical villa, where he extended a living room with a terrace-like platform and an iron balcony above. The

principal added element was the terrace which was even more important in that it was raised few steps above the garden. In a late 1920s project (Villa Beistegui 1929-1930), Le Corbusier designed a complex of terraces, the most important and sublime of which is a highly private one that can be reached only by a flying stairway.

**Figure 151**

Villa Berque (a small commission for upgrading a classical villa in 1921). Le Corbusier added the raised terrace and the iron balcony over the entrance.

**Figure 152**

Stairs became a symbol of the process of ascent on the subjective journey of promenading, which ends here on a raised private terrace. The suspended elevation creates a symbolic (surreal) relationship to the surroundings.

**Figure 154**

Sketch by Le Corbusier of a path beneath a pergola in an unidentified project.

**Figure 153**

The passageway beneath the gallery of Villa La Roche.

As described in Chapter Two, the promenade of Villa La Roche starts from the overhung passageway and meanders beneath the gallery raised on *pilotis*. Strolling between the slim pillars standing like tree trunks and shaded by the overhang, one begins to define an axis that corresponds to that extended between the wooden supports of the pergola. The stroller's physical involvement with the free standing elements, which provide flashes of vision, was separated from the suspended, stable and private place where all views can be linked through the overlooking balconies and terraces. Between the two poles of the promenade, a series of stairs and ramps achieve the goal of elevation.

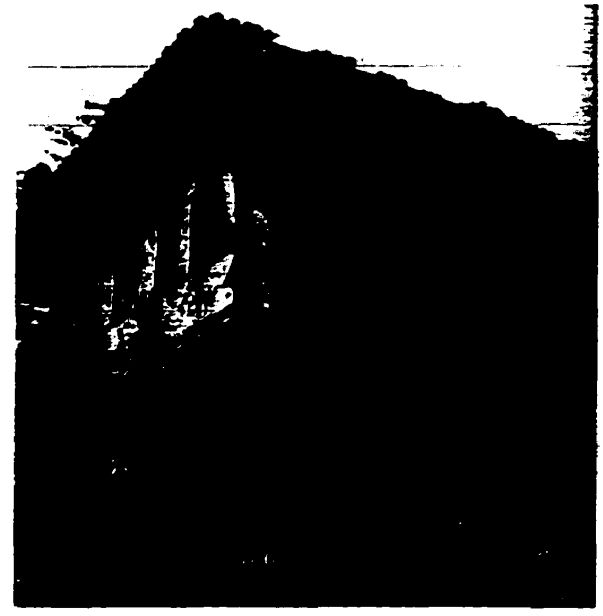

**Figure 156**

A 19th century Turkish vernacular house raised on pilotis!

**Figure 157**

The entry of villa Jeanneret-Perret, 1911-12. A path under the shade of a pergola.

**Figure 155**

The pergola of Villa Jeanneret created Le Corbusier's first *Jardin d'été*.

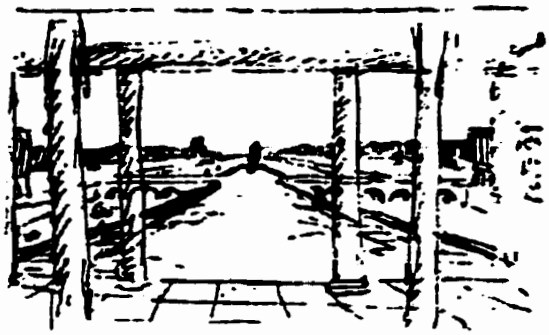

**Figure 158**

← Pompeii, 1911.

**Figure 159**

The Parthenon. →

**Figure 160:** Istanbul.

**Figure 161:** Driveway beneath Villa Savoye, 1929.

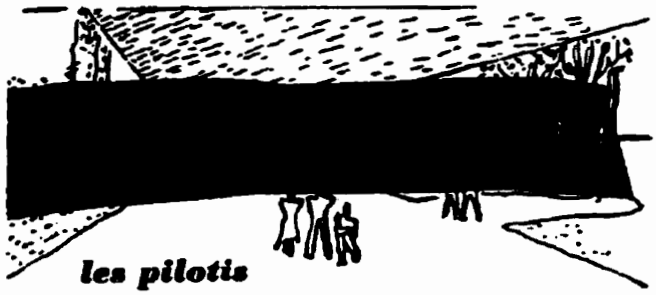


**Figure 162:** Walkway beneath L'Unité

Generally, Le Corbusier perceived the idea of mounting as a holy process that aims at human ascent. He portrayed many of his stairs with a basin of water beside them, linking purification and the elevating journey. As early as Villa Jeanneret/Perret (1912) Charles Ed. Jeanneret first presented a water basin at the foot of a staircase, as if he were stressing the link between them. In a detailed drawing of Villa La Roche (see FLC 15207 Figures 56 and 149 in Chapters Two and Three respectively), he proposed a water fountain just under the main staircase. The juxtaposition between water and stairs as two linked

sources of purification and ascent is found not only in these two examples, but in several others as well, the most significant of which is Villa Savoye. In a stirring shot of this project, Le Corbusier shows a strong relation between the fountain and the two elevating means, a stair and a ramp. In his travel diaries, the young Jeanneret expressed his fascination with the water basins used for ablution inside the mosques of Istanbul. He noted the importance of the purification ritual for accomplishing an elevation of the soul: "Inside each mosque they pray and chant. Having washed their mouths, faces, hands, and feet, they prostrate themselves before Allah."[28] For Le Corbusier, purification is part of the journey of ascent which leads to an elevated state of mind.

**Figure 163**

A shot (1912) from under the staircase of Villa Jeanneret/Perret showing, for the first time, a standard basin placed in relation to the staircase.

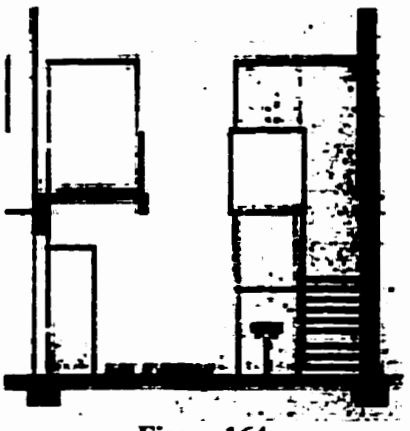

**Figure 164**

A detail from FLC 15207 showing the relation between the stairs and the water basin

[28] Le Corbusier, Journey To The East,, 95.

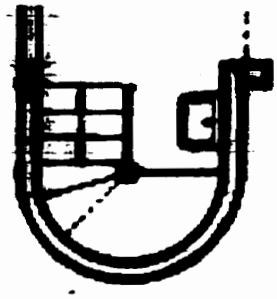

**Figure 165**

Detail from the plan of maison d'artist (1922) (FLC 30196).

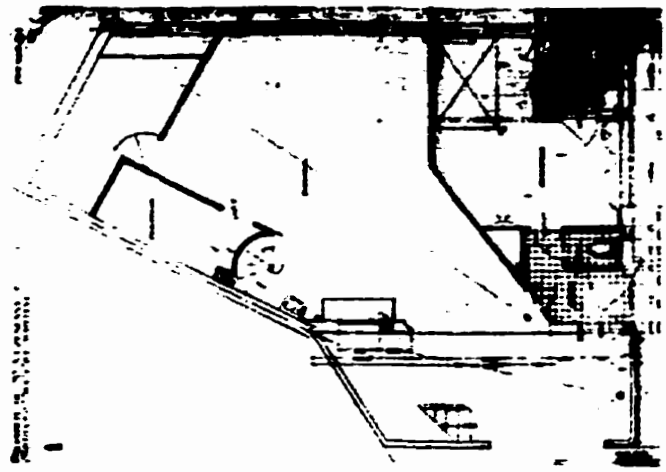

**Figure 167**

Maison d'Ozenfant: The same link is maintained between the spiral steel stairway and the small basin of water placed at the base of the journey of "ascent" (FLC 7816, 1922).

**Figure 166**

Sketch of the Royal Palace of Prague.

**Figure 168**

Sketch of a Baroque-style monastery in the Balkans (Jeanneret, May 1911).

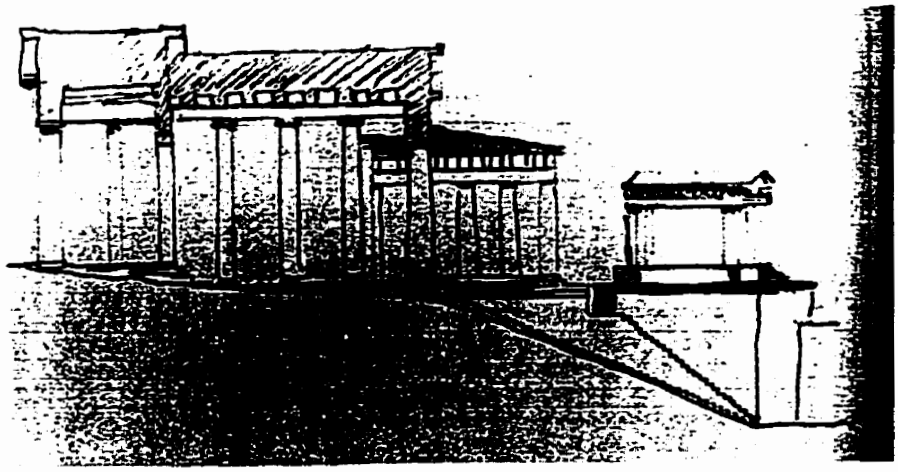

**Figure 169**

The long steep stairway leading to the Parthenon on Mount Olympia at Athens, sketched by Jeanneret during his journey to the East (August 1911).

The ramp was a similar, though contradictory, means of elevation. A famous photograph of Villa Savoye brings together a laborious spiral stairway and a straight ramp in opposition (Figures 170 and 171). Ramps had no less fascination than stairs for Le Corbusier. They received almost the same detailed emphasis in his sketches and played an influential role in his new type of architecture. But it was not until Villa La Roche that the element gained a significant architectural role. The two jutting balconies (viewing boxes) of the villa were directly linked to the main staircase and the curved ramp. If the stair is a physically laborious means for elevation, the ramp is a considerably more fluid and "mental" means of ascent. The ramp of Villa La Roche was given a controlling location in the gallery where it embodied the functions of both bridge and stairway. It linked the gallery space with the library on the upper floor while opening to the paintings on one side. Its physical path was echoed in the facade by a unique "swelling" of the outer wall.

**Figure 171**

Water basin placed between the two means of "elevation", the ramp and the stair. A view from the interior of Villa Savoye carefully photographed by Le Corbusier.

**Figure 170**

View inside Villa Savoye gathers the straight ramp and the circular stair in a mood of opposition. A water basin can be seen at rear between the two means of "elevation".

**Figure 174**

Sketch in Frankfurt, 1910.

**Figure 173**

Ramp sketched in Germany, 1910.

**Figure 172**

Another view of the Royal Palace of Prague with a ramp dominating the scene

The idea of the ramp in Villa La Roche was introduced as early as his first sketches before the site and the program of the project were fixed. In an early phase (FLC 15135, Figure 78 in Chapter Two), Le Corbusier sketched a central living space dominated by a double landing ramp with a semi-circular balcony at its first landing (resembling the jutting box of the final design, but semi-circlular in shape). The sketch revealed a state of suspension, emphasized by the seated figure with still-life elements at the lower level, while a human figure can be seen at the end of the ramp in a meditative pose. In Le Corbusier's projects, the ramp played a multiple role in the creation of a promenade experience. The ramp offered

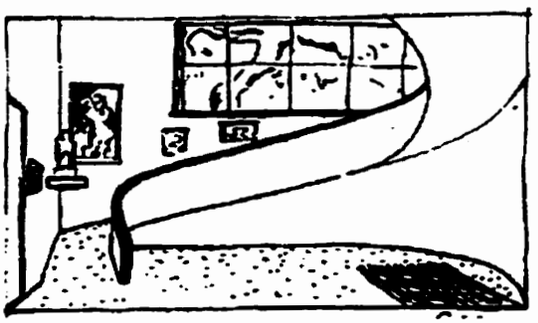

**Figure 175**

An early stage in the design of Villa La Roche (before the final site was decided) presents a ramp flying over the main living area with a large glass window in the middle. The journey provides both internal and external viewing (FLC 15254).

the stroller a well defined extended path, a view while walking, and the experience of elevation from one level to the next.

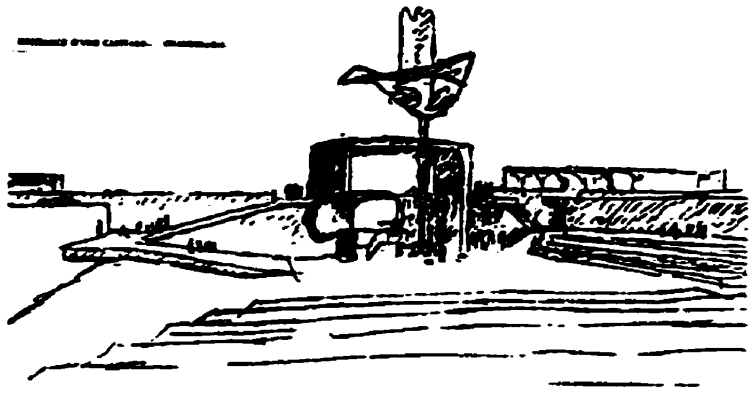

**Figure 176**

The monument proposed by Le Corbusier to celebrate the completion of the project of Chandigarh.

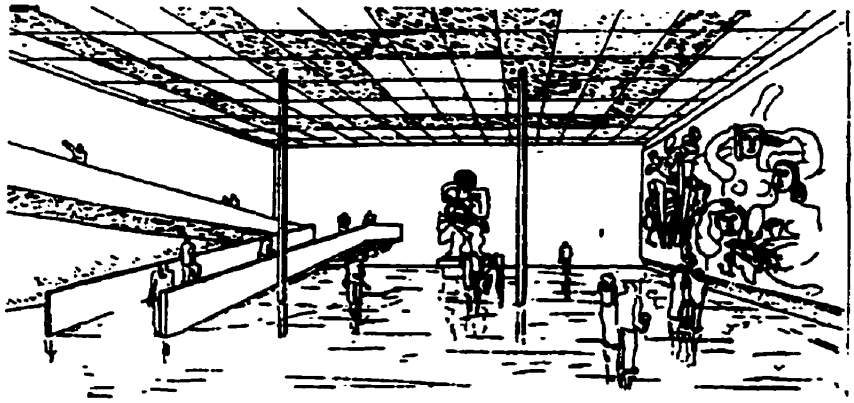

**Figure 177**

Centre d' Esthetique Contemporain as proposed by Le Corbusier. The ramp is important for viewing and circulation.

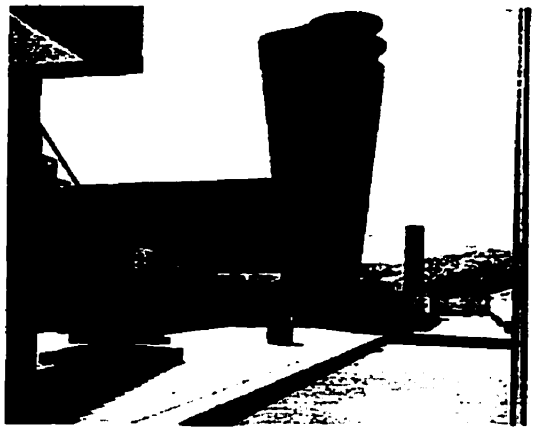

**Figure 178**

The roof of the *Unite d'Habitation.*

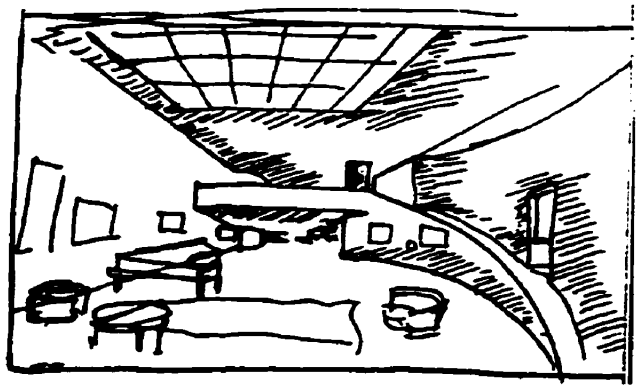

**Figure 179**

The gallery ramp of villa La Roche as sketched by le Corbusier in 1923.

The ramp became a consistent element in Le Corbusier's projects where a meditative power was needed. In many of his late projects, especially museums and exhibition spaces, the ramp received a special location. Perhaps one of the reasons that he could not use it before Villa La Roche is that all his previous projects in Paris were small commissions with insufficient inner spaces. In establishing his new vision of architecture, drawing pathways was essential for Le Corbusier: "Architecture is circulation."[29] According to this equation he classified his own domestic architecture into four types (see Figure 181). He ranked villa Savoye as the most ideal, the one type that could gather the accumulated repertoire of the previous three types: Villa La Roche, Villa Stein, and Villa Baizeau. Le Corbusier drew attention to the status of Villa Savoye as the final development of a new type of domestic architecture, a development that began with Villa La Roche: "The fourth type has the external purity of form of the second; in the interiors, it combines the

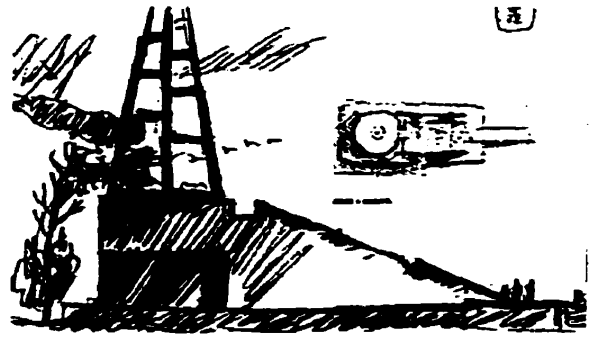

**Figure 180**

A proposal for l'Eglise de Pologne consists mainly of a combination of a ramp and a ladder.

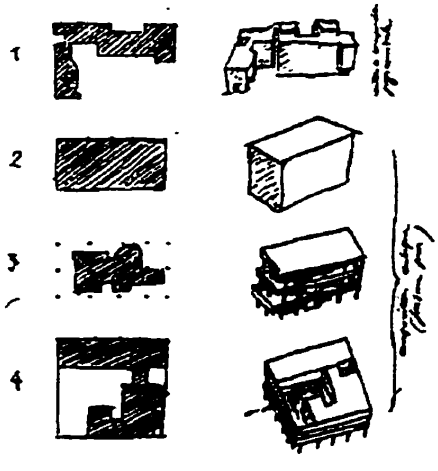

**Figure 181**

The four main types of cells as illustrated by Le Corbusier.

[29] Le Corbusier, *Precision sur un etait present de l'architecture et de l'urbanisme* (Paris: Vincent, Freal, 1930; 1960 edition), 136; quoted in quoted in Jacques Guiton, The Ideas of Le Corbusier in Architecture and Urban Planning, 50.

advantages and qualities of the first and third. A pure type, very generous, full of resources, too"[30] His "ideal" villa is the one that brought together, in a complex integration, all the means of circulation that he had begun to elaborate since villa La Roche. While the stairway of Villa Savoye was simultaneously a "spiral staircase . . . dug into the earth below the *pilotis*, [and a] . . pure vertical organ, . . inserted freely into the horizontal composition"— that is, a non meditative access between levels—the ramp led up gently "almost without [one] noticing it, to the first floor where the life of the owner [was] deployed. . . "[31] In concept and actuality, the two are clearly very different: the former depends mainly on the physical power of exertion with less viewing activity; the latter is less physically demanding while providing more viewing power.

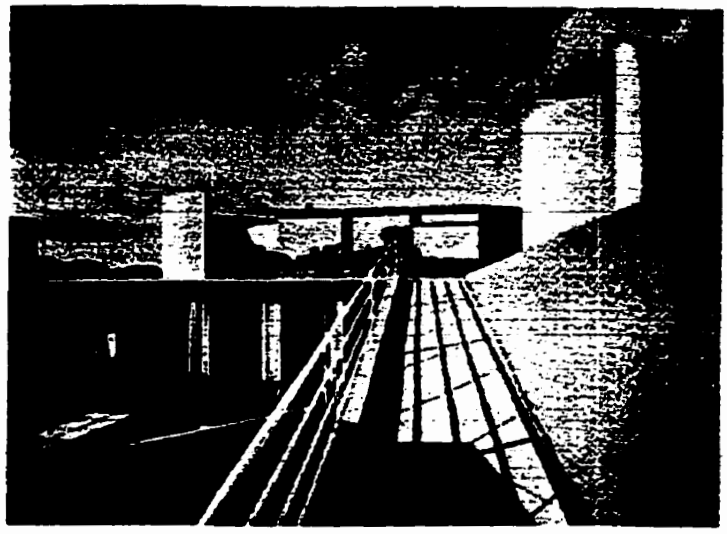

**Figure 182**

**The ramp of Villa Savoye played a significant role in accomplishing the journey inside the house.**

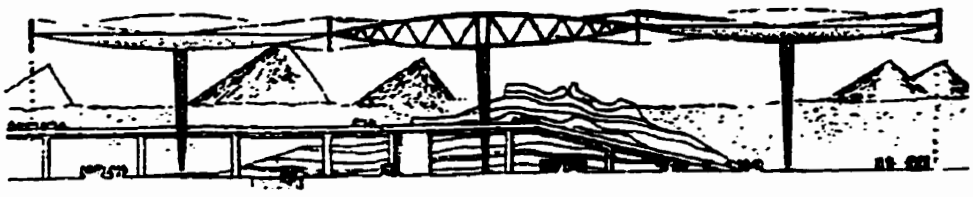

**Figure 183**

Le Corbusier's "Exposition de l'Eau a Liege".

[30] Ibid.

[31] Ibid.

I am greatly moved by everything in Italy. I had lived four months in great simplicity: the sea, mountains of rocks; and, of a similar profile, Turkey with its mosques, its wooden houses, cemeteries; Athos with monasteries closed like prisons around their single Byzantine church; Greece with temples and hovels. . . . Everything leads me to single out the Turks. They were polite, solemn; they had respect for the presence of things. Their work is huge and beautiful, grandiose. Such unity! Such timelessness! Such wisdom! Evenings in the courtyards of great mosques[32] . . . .

. . . . . .

I have finished at last! Why have I undertaken this fruitless task? I wanted "to commit myself," to be obliged to pursue it to the very end. I thought it would be nice to have living memories of the journey. . . .[33]

[32] Le Corbusier, Journey To The East, 240.

[33] Le Corbusier, Journey To The East, 266. (These sentences occur in the original manuscript completed at Naples, October 10, 1911); they were omitted in Le Corbusier's revision of July 17, 1965, and in subsequent editions.)

# Conclusion

*It is this backward motion toward the source,*
*Against the stream, that most we see ourselves in,*
*The tribute of the current to the source.*
Robert Frost, from "West Running Brook".

To move back towards "origins", as Frye noted in his essay *The Journey as Metaphor*,[1] is to move against the flow. In fact the word origin, as it is largely used, does not refer to an absolute or single point of reference: it is rather a "motion", the initiation of a certain movement that many follow until a turning point is reached. Initiators thus stand as "makers of origin"; such origins then act as new orienting points. The initiator alone "breaks their code of values . . . It is he who is the creator . . . seeks other creators like himself, those to inscribe new values."[2] The initiator's role is to build "bridges" towards a new origin, to constitute a vision that is subjective enough to draw an axis emerging from a "local symmetrical vision" outwards through boundaries of space and time. Leading on a new path is to start a journey by crossing the previously determined boundaries and breaking into new dimensions. The goal of such a journey is different from that of ordinary journeys. It carries in itself a duality of being: although it appears to be a backward movement towards the past, it is in fact moving forward into new territory.

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[1] Northrop Frye, "The Journey as Metaphor", ed. Robert D. Denham, chap. in Myth and Metaphor: Selected Essays 1974 - 1988 (Charlottesville: University Press of Virginia, 1990), 224

[2] Nietzsche, Zarathustra, 14.

It was, of course, Le Corbusier's own personality that prepared him for radical revolt. Although his early education in La Chaux-de-Fonds was to a great extent one directional, it carried in itself the idea of uprising. L'Eplattenier's goal was to establish a regional identity, and the *L'École d'Art* had the full support of the city inhabitants in this respect.. On his first tour, Jeanneret sought to re-affirm that goal by going out and searching for the roots of his region's identity. Crossing time and space boundaries deeply affected his mind and spurred him to undertake further travel. Each stride, one leading to the next, had its share in the defining of a path. His decision to re-found the discipline of architecture marked him as the origin of a stream that many others would follow. Establishing his vision was not merely enacting a trivial opposition to established norms; nor was it following blindly a path without origin or end. Le Corbusier constructed his new conception of architecture from an authentic personal position (what Hall called the personal territory, that is essential for life[3]), from which he could reach out in various directions to build links with other origins that are grounded in truth. He was aware that truth does not only belong to one place but is distributed among many places in all cultures. He also understood that each culture has had its role in developing at least one of the important endeavors of humanity. On that basis, his wide range of travel and his exposure to various cultures were key elements in the process of synthesizing his modern conception of architecture. In one of his early books, Le Corbusier declared the importance of journeying for seeing the world anew: "Some of us went away to travel . . .

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[3]Edward T. Hall, The Silent Language (Garden City, N.Y: Doubleday, 1959) , 69.

. When we came back, we were stunned and disturbed by the ebullient faith still animating those who stayed behind."[4]

A real journey is one that encompasses the struggle between the physical and the mental worlds. Paradoxically it opens that which was previously a bounded space. By crossing from one space to another, the individual carries on the continuous action of externalizing and internalizing spaces. Like the axis of movement, the individual is a part of each space while maintaining another 'exterior being' that penetrates and ties the whole together. The explorer's journey consists of a "bundle of complexities" that arise once the mental activity integrates with the physical movement, in spite of the contradiction between their essences. The mental activity directs the subjective entity to dominate, rendering the mind as the center around which the whole world revolves.

At the threshold of the central hall of Villa La Roche, for instance, one moves from a position of externalization to one of internalization. Its pure cubical form, simplicity and whiteness is so striking and revolutionary at the time, was foreign and external. Yet its abstraction, its lightness simultaneously name it a kind of de-materialized, mental — therefore internal — space. In the real journey, where the body motion and the mental action are conjoined, the mind slowly acquired the lead. The pure white balcony hovering in the middle of the space finally secure the body in a stable box, the mind free to explore new relationships not discovered before. The huge glass window panel, seen from that

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[4] Le Corbusier, Decorative Art , 197-200.

position, ever extends the vision outside. Yet the balcony is only an intermediate pause within a continuing journey of exploration, and extending one's existence ever further.

An important aspect of the definition of traveling in general is the idea of motion and the subjective nature of the experience in the traveler's mind. One can describe a specific journeying path as a combination of some, or all, of the previously defining paths which currently accommodate one's specific psychological condition. The resonance between the person and the chosen path enhances the outer discoveries by integrating them with an interior exploration, "so the theme of journeying for the sake of the experience of journeying would often be at the same time a journey into oneself."[5] The exterior journey is relative to the interior mental movement of the traveler, the path becomes relative to one's goal, and the destination cannot escape its relation to an origin. The web of relations produces a kind of cyclical motion. The cyclic nature of the journey itself is the eternal oscillation between the origin and the destination. The former has meaning only in terms of the latter, while the latter is defined only in the sense of opposition to the former. But this mutual dependence between the old and the new creates a tension since they cannot exist simultaneously. Neither together nor separately do they constitute stable ground.

In fact, the idea of 'change' carries in itself the essence of that circular nature. Hall refers to change as "a complex circular process [that] . . proceeds from formal to informal to technical to new formal. . ."[6] While journeying, one is continuously stretched between

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[5] Frye, Myth and Metaphor, 221.
[6] Hall, Silent language, 116.

the present location, the origin, the end, and a next position in a continuous cycle. The notion is clearly spelled out in the old legends and stories, described here by Frye:

> "A journey is a movement from here to there . . . . the containing way or direction is cyclical. When the cyclical movement enters the individual life, we have the journey we call the quest, where a hero goes out to accomplish something, . . . The hero of a quest first of all goes (away) . . ."[7]

Le Corbusier's work was sometimes seen as "anti-historical" or as an attempt to kill traditional values. In truth, he continuously reached out towards the past:

> "I appealed to the testimony of the past, that past which was my only master and remains my constant critic. Any thinking man, thrown into the great unknown of architectural invention, will find his sole support in the lessons of past centuries."[8]

Although he opposed the idea of tradition as binding, he did not deny its value, but implemented anew the viable essence from a different vantage point, one that carries a certain surrealism. He no longer considered the past as an absolute authority over the present, but as a source of replenishment. Le Corbusier's journey extended his vision to more than just the immediately surrounding facts. Instead of responding to the perceived differences of the 'other' (as so many 'Orientalists' had done), Le Corbusier observed their potential and sketched them in his carnets as well as in his mind. It was possible for him afterwards to create a surrealistic linkage. Le Corbusier's surrealism followed Breton's definition: "an extension of the notion of reality—more precisely, an expanded

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[7] Frye, Myth and Metaphor, 213.

awareness of reality."[9] He was aware that new ideas, which arise out of new conditions, must lead to radical change. But extracting an essence from history was still the only recourse for dealing with novel situations. Both history and the present gained a new clarity through Le Corbusier's imaginative reconstruction of eternal history.

Paul Ricoeur asserted that the emergence of new meanings in the sphere of language is dependent on the emergence of new images. He suggests that the means to give rise to this new "imaginative" or "figurative" language is metaphor. A metaphor "appears", writes Ricoeur, "to open the way to a joint reinterpretation of sense and representation . . to which image gives a body, a contour, a shape and meaning"[10] Metaphor that cannot stand alone for one 'thing', Frye noted, focuses mainly on 'relationships'. If in the sphere of language, a metaphor can establish a kind of visual link between one word and another, metaphors are even more likely to establish links through the visual language of art. Metaphor is then a spur for the imagination to transform sensual experiments into psychological ones, producing "productive" new combinations not "imagined" before. According to its Greek origins, the word "symbol" is derived from *symbolon* which means "to put together or to throw together". As Ricoeur describes it, metaphor works in a similar way: " The bringing together [of] two previously distant semantic fields strikes against a prior categorization"[11] The common notion of metaphor revolves around the idea of fiction that has always been the spur for initiating new artistic expressions. The

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[8] "Entretien avec les etudiants des ecoles d'architectures" (Le Corbusier Talks with Students), (Paris: Editions de Minuit, 1957), 11; quoted in Jacques Guiton, The Ideas of Le Corbusier in Architecture and Urban Planning (New York: Braziller, 1981), 57

[9] Andre Breton, What is Surrealism,24.

[10] Paul Ricoeur, Function Of Fiction , 129.

[11] Ibid. , 131.

new expression usually contains certain visual ideas that can be enhanced by seeing similarities rather than differences, or in other words, *"seeing as"* instead of just seeing.

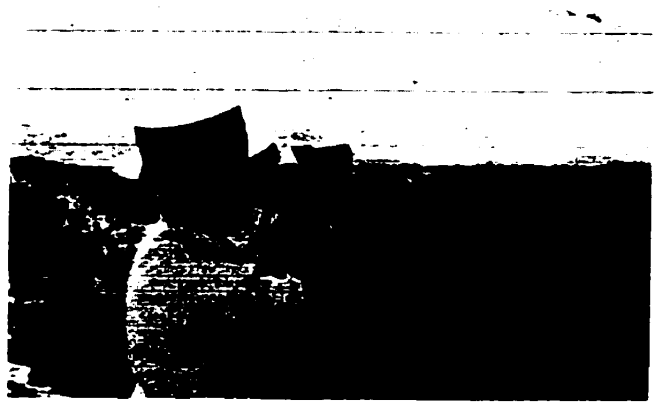

**Figure 184**

Le Corbusier extending his vision. A photo from Lui-Meme.

Looking for similarities was Le Corbusier's way. Instead of looking for differences, Le Corbusier sought, through his journeys, to establish correspondences. In other words, one could say that Le Corbusier created metaphorical relationships, bridging between previously unrelated fields of experience. In spite of the seemingly minor roles played by the journeys to Italy and Vienna in shaping Le Corbusier's final ideas, in reality they were first steps that led towards a series of succeeding journeys. He may not have changed his principles while on those first journeys, but they were the first steps towards his re-synthesis of Western space/time. His first radical turn, for instance, occurred immediately after the end of his trip to Vienna when he decided to go to Paris despite L' Eplattenier's admonition. Paris directed him to the structural question while Germany implanted in him the idea of the machine aesthetic and its consequences. The importance of the crucial journey to the East lies in its being an extension and synthesis of all previous travels. Through the action of crossing the boundaries of time and space, previous lessons were internalized, and he gained a new position from which he could

look back towards his Western origin: "One of the most effective ways to learn about oneself is by taking seriously the cultures of others."[12]

The journey to the East was like an extended visit to an open 'live' museum that placed him in direct contact with other cultures. His profound regard for the purity and simplicity of form and function which he observed in the old architecture of distant cultures ensured that he would follow those principles in his own work: "I have seen the countries famous for their regional styles . . . . The folk cultures showed me how serious is every lasting act . . . ."[13] The resistant powers of difference were overcome by Le Corbusier's power to create new relations, resolving the conflict between "proximity" and "distance", which is the essence of imagination.

**Figure 185**
Le Corbusier at Chandigarh.

[12] Hall, Silent language, 53
[13] Le Corbusier, Decorative Art , 207-210.

"Architecture was revealed to me. . . . Architecture has nothing to do with decoration. . . . There is no decoration that can summon up the feelings of a traveler: there is architecture which is pure, unified, form—structure and modeling. . . . As a free pilgrim . . . guided by the spur of the moment impulses, I crossed countries on foot, on horseback, by boat or motorcar, coming up against the basic unity of the fundamental human elements amid the diversity of races."[14]

**Figure 186**

Corbu with a bridge and a boat behind him. The two elements were favored by him and were used metaphorically in may of his designs.

[14] Ibid., 207-210.

# Bibliography


- Arendt, Hannah. The Human Condition. Chicago: Chicago University Press, 1959.

- _____. The Life of the Mind. New York: Harcourt Brace Jovanovich, 1971.

- Baker, Geoffery H. The Early Years Of Le Corbusier; La Chaux-de-Fonds, Design and Plans. London: Academy Editions, 1987.

- _____. Le Corbusier—The Creative Search: The Formative years of Charles-Edouard Jeanneret. London: E. & F.N. Spon, 1996.

- Benton, Tim. The Villas Of Le Corbusier 1920-1930. New Haven: Yale University Press, 1987.

- Besset. Le Corbusier: To Live With The Light. Lausanne: IRL Imprimeries Reunies, n.d.

- Breton, André. What is Surrealism? Selected Writings. Edited by Franklin Rosemont. New York: Monad Press, 1978.

- Brooks, H. Allen. Le Corbusier's Formative Years. Chicago: The University of Chicago Press, 1997.

• Fischer, Katherine Fraser. "A Nature Morte." In Oppositions (A Journal for Ideas and Criticism in Architecture): Le Corbusier 1905-1933, 15/16, edited by Kenneth Frampton, n.d.

• Forster, Kurt W. "Antiquity and Modernity in the La Roche-Jeanneret: Houses of 1923." In Oppositions (A Journal for Ideas and Criticism in Architecture): Le Corbusier 1905-1933, 15/16, edited by Kenneth Frampton, n.d.

• Frye, Northrop, Myth and Metaphor: Selected Essays, 1974-1988. Edited by Robert D. Denham, Charlottesville: University Press Of Virginia, 1990.

• Hall, Edward T. The Silent Language. NewYork: Garden City, Doubleday, 1959.

• _____. Understanding Cultural Differences. New York: Intercultural Press, Edward T. Hall Associates, 1987.

• Jencks, Charles. Le Corbusier and the Tragic View of Architecture Cambridge (Massachusetts): Harvard University Press, 1973.

• Küçükerman, Önder. Turkish House, In Search of Spatial Identity. Istanbul: Turkish Touring and Automobile Association, 1985.

• Le Corbusier, Creation Is a Patient Search, Translated by James Palmes. New York: Frederick A. Praeger, 1960.

• _____. My Work. Translated by Maurice Jardot, London: The Architectural Press, 1960.

• _____. The Complete Architectural Works, Vol. 1, 1910-1929. Edited by W. Boesiger and O. Stonorow. London: Thames and Hudson, 1964.

• _____. The Complete Architectural Works, Vol. 2, 1929-1934. Edited by W. Boesiger and O. Stonorow. London: Thames and Hudson, 1964.

• _____. The City of Tomorrow. Translated by Frederick Etchells. London: John Rodker,1929; reprinted, London: The Architectural Press, 1971.

• _____. Le Corbusier Archive: Early Buildings and Projects 1912-1923. Edited by H. Allen Brooks, New York: Garland Publishing, Inc. and Fondation Le Corbusier, Paris, 1982.

• _____. The Le Corbusier Archive: Unite D'Habitaion, Marseille-Michelet. Edited by H. Allen Brooks, New York: Garland Publishing, Inc. and Fondation Le Corbusier, Paris, 1982.

• _____. The Decorative Art Of Today. Translated by James I. Dunnett, Cambridge, (Massachusetts): MIT Press, 1987.

• _____. Journey To The East. Edited by Ivan Zaknic. Cambridge (Massachussetts): The MIT Press, 1989.

• _____. Towards A New Architecture, Translated by Fredrick Etchells. London: John Rodker, 1927; reprinted, London: Butterworth Architecture, 1989.

• Moos, Stanislaus von. Le Corbusier: Elements of a Synthesis. Cambridge (Mass.): MIT Press, 1979.

- Nietzsche, Friedrich W. Thus Spake Zarathustra. Translated by A. Tille. London: J. M. Dent & Sons, 1958.

- Plazzolo, Carlo and Vio, Ricardo (editors). In The Footsteps of Le Corbusier. New York: Rizzoli International Publications, 1991.

- Passanti, Francesco. "The Vernacular, Modernism, and Le Corbusier," Journal of the Society, V. 56, no. 4: 438-451.

- Petit, Jean. Le Corbusier; Lui-Meme. Geneva: Editions Rousseau, 1956.

- Postman, Neil. The Surrender of Culture to Technology. New York: Knopf, 1993.

- Ricoeur, Paul. "The Function of Fiction in Shaping Reality", Man and World 12, no.2: 125.

- Ruskin, John. Modern Painters, Vol. 3. New York: Longmans, Green, and Co., 1904.

- Schuré, Edouard. The Great Initiates: A Study of the Secret History of Religions, Translated by Gloria Rasberry. New York: Rudolf Steiner Publications, 1961.

- Simmel, Georg. "Bridge and Door", from Theory, Culture and Society: Simmel On Culture; Selected Writings. Translated by Mike Featherstone and David Frisby. London: Sage Press. Vol. II, 1994.

- Viollet-Le-Duc, Eugène-Emmanuel. Lectures On Architecture. Translated by Benjamin Bucknall. New York: Dover Publications, Vol. I, n.d.

- Vogt-Goknil. Living Architecture: Ottoman. Translated by Osmanische Tuerke. New York: Grosset & Dunlap, 1966.

- Wilson, Peter J. The Domestication Of The Human Species. New Haven: Yale University Press, 1988.